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Research has consistently shown that African American male students have lower grade point averages (GPAs) (McGuire, 2005), lower standardized test scores (Sims, 2012), lower class level placement (Noguera, 2005), have higher dropout rates (Schott Foundation for Public Education, 2010), and lower college graduation rates (Harper, 2012) on average compared to White students in particular. School engagement, or, how a student behaves in school (behavioral engagement), feels about school (emotional engagement), and thinks about school (cognitive engagement) (Fredericks et al., 2004), has been shown to have a significant impact on student outcomes. Decreased dropout rates (Finn & Rock, 1997), higher grades (Caraway, Tucker, Reinke, & Hall, 2003; Wang & Holcombe, 2010), and lower problem behaviors (Finn et al., 1995; Eccles & Barber, 1999) have all been linked to increased school engagement. When students perceive that their teachers, parents, and peers are supportive of them, school engagement increases (Garcia-Reed, Reed, & Peterson, 2005), grades increase (Rosenfeld, Richmond, & Bowen, 2000), as well as a host of other positive school related outcomes (Demaray & Malecki, 2002). However, connections between social support, school engagement, and student outcomes in African American male high school students are non-existent.

The current study fills the identified gaps by uncovering how social support and school engagement relate to African American male high school students' grades. Additionally, this research project examines if behavioral, emotional, and/or cognitive school engagement mediates the significant pathways from parent, teacher, and peer

support to grades. Multiple regression analyses indicated that student GPA increases when students report increased behavioral engagement and GPA decreases when students report increased peer support. Additionally, when students report increased teacher support, emotional school engagement and behavioral school engagement are also likely to increase. Implications for the results of the current study and future directions are discussed.

# SOCIAL SUPPORT, SCHOOL ENGAGEMENT, AND ACADEMIC ACHIEVEMENT IN A SAMPLE OF AFRICAN AMERICAN MALE HIGH SCHOOL STUDENTS

by

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As a privileged, White male, I have consistently benefitted from the good graces of people around me. I have had the unyielding emotional and financial support from my family, friends, and teachers to pursue my dreams; to break into uncharted territory in life with a stead-fastness that I'm sure I would not have without them. Yet, as a former teacher and school counselor, I see children every day who leave school with more barriers in place than when they arrived. I have heard stories from students who have decided to not take an honors class because their teacher doubts them, who don't go out for the football team because their peers mock their athleticism, and who skip school because their parents don't value education. I see doors being shut.

This is why I have decided to pursue the topic of my dissertation. I want all children to know that they are valuable. When the color of a child's skin places him or her in a category of privilege or risk, as empowered or disenfranchised, as capable or inept; then everyone in this nation loses an unrealized asset. The future of this nation, the future of my profession, lies dormant in the minds of the next generation; and I will do what I can to help it blossom.

Throughout my life, I have been blessed to be supported, challenged, and encouraged by numerous people who saw strengths and talents in me that I didn't see in myself. My committee, Drs. Young, Gonzalez, Penfield, and Perlman, continuously offered their time, energy, and words of wisdom throughout this process. There were considerable bumps in the road as I worked on completing my dissertation, and my

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My family has always been there for me, through the highs and lows. My sister, Alison, my brother in law, Matt, and my nephew, Eric, have always made me feel welcome in their home and part of their family. Now that I have finished my degree, I'm looking forward to spending more time with all of you, and to dressing up as Captain America with the world's greatest nephew. My dad has been an inspiration to me. The

demands of academia can be overwhelming, but my dad has a way of making me feel like I can overcome any barrier if I focus and work hard. I know it wasn't easy at times, but these traits my dad taught me to embrace are what made this accomplishment possible. And, of course, my mom deserves an immense amount of gratitude. My mom has seen me at my best and at my worst, and has always been proud of me. She taught me to be humble and grateful for the things I have that others may not, to be thankful for the chance to prove myself through hard work instead of despising difficult tasks, to give my full effort even when I feel as though I have nothing left to give, and to always look for the best in the people around me. In many ways, my interest in helping students reach their full potential is a direct reflection of the values my mom instilled in me.

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The old adage "it takes a village to raise a child" has never been truer than it is for me. For the people listed above, and for the hundreds of others that I've neglected to mention in this short space, I am grateful for all you've done to help me grow. I have learned so much about life, and about myself, because you believed in me.

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# CHAPTER I

## INTRODUCTION

> In order to get beyond racism we must first take account of race. There is no other way. -Justice Harry Blackman

The current year, 2013, represents the 50th anniversary of the historic march on Washington, in which 250,000 men and women converged on the Lincoln memorial to campaign for equal rights. It was during this peaceful protest that Dr. Martin Luther King Jr. delivered his iconic "I Have A Dream" speech, in which he described a vision of a unified America; one where individuals were judged by their inner character instead of the color of their skin. On August 28th, 2013, Barack Obama, America's first African American president, stood on the same steps in front of the Lincoln Memorial half a century later and delivered a speech to commemorate and celebrate the civil rights movement of the 1960's. President Obama acknowledged that, because of those who protested for justice, the change over the past 50 years has been immense,

> And because they kept marching, America changed. Because they marched, the civil rights law was passed. Because they marched, the voting rights law was signed. Because they marched, doors of opportunity and education swung open so their daughters and sons could finally imagine a life for themselves beyond

> washing somebody else's laundry or shining somebody else's shoes. Because they marched, city councils changed and state legislatures changed and Congress changed and, yes, eventually the White House changed.

But to say that the work of Dr. King and other civil rights advocates is complete would be an egregious oversight. The path to economic prosperity and quality education is still heavily divided among racial lines, a reality that President Obama sees as our nation's current priority.

> And so as we mark this anniversary, we must remind ourselves that the measure of progress for those who marched 50 years ago was not merely how many blacks had joined the ranks of millionaires; it was whether this country would admit all people who were willing to work hard, regardless of race, into the ranks of a middle-class life. The test was not and never has been whether the doors of opportunity are cracked a bit wider for a few. It was whether our economic system provides a fair shot for the many, for the black custodian and the white steelworker, the immigrant dishwasher and the Native American veteran. To win that battle, to answer that call -- this remains our great unfinished business.

And so, the fight for equality continues. Great strides towards social justice have given rise to a new America, a nation where new laws and legislation have set the stage for a more just society, but the path does not end here. As Delgado and Stefanic (2001) stated in *Critical Race Theory*, a book that addresses racial disparity in America, justice is not only a procedure, it is a result. To create laws and initiatives is a necessary step in the fight towards justice, but when educational and material wealth in this country continue to be divided down racial lines, it is proof that the dream that Dr. King spoke of in 1963 has yet to be fully realized. It is proof that racism remains a roadblock to true equality.

## Rationale for the Study

The literature base on African American students in schools often takes a comparative approach, highlighting differences in African American students and students of other races without digging deeper into the historical, economic, and social underpinnings of why these differences exist. Chapter 1 will present the current literature on African American male students in school and will discuss why different research approaches are necessary.

Performing well in school affords students many benefits. Bachelor's degree recipients make significantly more money than non-degree holders (Finn & Rock, 1997; Gnuschke & Wallace, 2004), nearly twice as much money in a year as high school graduates and over three times as much as high school drop outs (Gnuschke & Wallace, 2004). In total, this means that college graduates can expect to make over three million dollars more in their lifetime as compared to individuals who do not complete high school (Gnuschke & Wallace, 2004). There are other distal benefits to succeeding in school as well, as college graduates are nearly half as likely to experience high blood pressure, high cholesterol, diabetes, obesity, current smoking, and physical inactivity as compared to high school non-completers (The Benefits of Higher Education, 2006). Higher education can even protect individuals from being affected by economic downturns, as 9.0% of individuals without college degrees in 2008 were unemployed during the most recent economic recession as compared to only 2.8% of college graduates (The Nation Students: Benefits of Higher Education, 2009). It is clear that the positive outcomes of succeeding in school are numerous.

Unfortunately, the literature on African American students has painted this group as struggling to attain academic success. In 1998, 14% of African American students dropped out of school, which is nearly double that of their white counterparts (National Center for Education Statistics, 1999). This overall trend in dropping out appears to be decreasing for students, yet, in 2002, African American students still had nearly twice the dropout rate of White students (13.1% vs. 6.9%, respectively), suggesting that the gap between these two populations is not decreasing through time. Punishments that students receive in school are also disproportional when taking student ethnicity into account. In 2000, African American students were suspended at 2.3 times the rate of White students, making up 32% of all public school suspensions nationally while only comprising 17% of the public school population (Brooks et al., 2000). Hinojosa (2008) noted that this outcome is nothing new, as "The over-representation of African American students in suspension and expulsion practices at school has been documented consistently in the literature across time. Virtually every study undertaken of schools and school districts has revealed the same types of disparities" (p. 175). The gap in academic achievement between African American and White students is also apparent in the US education system. As indicated by Simms (2012), of $4^{th}$ and $8^{th}$ graders who placed in the $75^{th}$ percentile or higher in reading and math on the 2011 National Assessment of Educational Progress (NAEP) exam, more than 70% were White while less than 8% were African American. Simms (2012) contended that a variety of factors likely converge (e.g., teaching staff at school, prosperity of the school district) to create this statistic and that African American students are more likely to live in an environment that inhibits

educational progress, which leads to this gap in grade attainment. These discrepancies in scores permeate through all levels of school, as Fryer and Levitt (2004) calculated that White students score more than .6 standard deviations ahead of African American students in math and .4 standard deviations ahead of African American students in reading by the fall of kindergarten. This gap increases by $1/10^{th}$ of a standard deviation as children progress through each school year. Deleterious outcomes reach even into the collegiate level, as 36% of White first time college goers attain a bachelor's degree, while 17% of African American first time college goers can claim the same feat (Radford et al., 2010).

Upon further examination, it would appear that African American male students are especially vulnerable to school related difficulties. African American male students graduate high school at a lower rate than African American female students (Lee, 1992; Greene & Winters, 2006), are four times more likely to be expelled or suspended from school as compared to their same age peers (Schott Foundation for Public Education, 2010), are more likely to be absent from advanced and gifted education programs and placed in lower level classes than other groups (Jackson & Moore, 2006), and make up 4.3% of total enrollment numbers in 4-year colleges and universities in the U.S., a percentage that has remained stagnant since 1976 (Harper, 2006; Strayhorn, 2008). Garibaldi (1992) summarized the current educational trends by pointing out that African American male students routinely are low or lowest in education statistics in nearly every indicator of school success (e.g., dropping out, absenteeism, suspension and expulsion, and low standardized test scores).

What are missing from the statistics outlined above are the reasons why African American male students are experiencing these discrepancies in school outcomes. Simply reading education statistics that compare minority and majority students can mislead readers to assume that minority students are not as academically gifted as majority students. In reality, there are unique factors that affect minority students in schools that are often overlooked in research (Fisher et al., 2002). Some African American male students are frustrated with these statistics and the negative stereotypes that come with them, as Harper (2005) interviewed high achieving African American male students at predominantly White universities and found that many were motivated to succeed and take leadership positions in order to debunk negative stereotypes of African American men. One student commented, "When I sit around a table in a meeting with the board of trustees or a student leadership group, it's a very White room. It is my hope that I, as well as some of the other African American men that you're interviewing here, have gotten into the minds of the administrators that this campus needs to be a lot more diverse. If we weren't seated around those tables, who would advocate for our needs?" (p. 11).

Taking into account current research statistics and the need for more culturally relevant research practices, researchers and counselors are looking for methods to further understand environmental factors that affect African American male students. A richer understanding of what affects African American male students can give way to new programs to increase academic outcomes.

**School Engagement**

School engagement, or the way a student thinks, feels, and acts in school (Fredericks et al., 2004), has garnered considerable attention in the education realm because of how it is connected to a student's school success. Students with low school engagement can expect to have decreased academic performance (such as low grade point averages (GPA) or standardized test scores) (Alexander, Entwisle, & Horsley, 1997; Caraway, Tucker, Reinke, & Hall, 2003; Connell, Spencer, & Aber, 1994; Csikszentmihalyi & Schneider, 2000; Marks, 2000; Newmann, Wehlage, & Lamborn, 1992; Skinner, Voelkl, 1997; Wang & Holcombe, 2010; Wellborn, & Connell, 1990), increased risk of dropping out of school (Finn & Rock, 1997; Finn, 1989; Ekstrom, Goertz, Pollack, & Rock, 1986; Ianni & Orr, 1996), and more discipline problems in school (Finn & Rock, 1997; Finn et al., 1995; Eccles & Barber, 1999) compared to students who are highly engaged. These benefits also seem to span across race and gender, as African American, Latino, White, male, and female students can expect multiple psychological and academic increases with elevated levels of school engagement (Dotterer & Lowe, 2011; Fine, 1991; Voelkl, 1997; Ream & Rumberger, 2008; Sciarra & Seirup, 2008; Sirin & Rogers-Sirin, 2010; Wang & Eccles, 2012; Wang & Eccles, 2011; Wang, Willett, & Eccles, 2011). The numerous positive benefits of school engagement for all students indicate that this area of research is worthy of continued investigation.

What is still a mystery, though, is what type or types of school engagement are the cause(s) of these school related issues or successes. School engagement can be broken into three distinct types: behavioral, emotional, and cognitive. Fredericks et al.

(2004) stated that *behavioral engagement* refers to "participation…involvement in academic and social or extracurricular activities" (p. 60). *Emotional engagement* refers to "positive and negative reactions to teachers, classmates, academics, and school" (p. 60). *Cognitive engagement* refers to "investment…it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills" (p. 60). There is some evidence to suggest that each of these different forms of engagement is responsible for unique school related outcomes, as low behavioral engagement is often associated with dropping out and school related behavior issues (Connell et al., 1995) while low cognitive engagement is associated with decreased GPA (Wang & Eccles, 2011). The effects of emotional engagement are not well studied, although there exists some research indicating that emotional engagement is associated with student GPA as well (Voelkl, 1997). This idea that different forms of engagement can be responsible for different student outcomes is quite novel, as school engagement has historically been measured as a uni-dimensional construct until researchers recently found a need to study these distinct forms of engagement independent of one another (Fredericks et al., 2004). Connecting these different forms of engagement to student outcomes is the first step in understanding how students identify with school.

**Past Methods for Studying School Engagement.** School engagement is clearly an important topic to examine, but past methods used to investigate school engagement have been poorly construed. Two main concerns about the current school engagement literature lie in the tendency of authors to look at between group differences in school engagement and neglect within group differences, and the tendency of authors to use

questions from surveys that appear to capture the concept of school engagement, yet have not undergone a Confirmatory Factor Analysis to ensure that they in fact are measuring the concept. Both of these issues need to be examined if further investigation into school engagement is to be fruitful.

First, most researchers who have commented on the school engagement of students have done so as part of a larger sampling effort that has included a large number of students from various backgrounds (Sciarra & Sierup, 2008; Dotterer & Lowe; 2008; Wang & Eccles, 2012; Johnson, Crosnoe, & Elder, 2001). Conducting research in this manner can help to highlight differences between students of different races, but has the unwanted effect of washing out subtle within-group differences that can exist, such as the effect of socioeconomic status, family dynamics, psychological and behavioral characteristics, or unique environmental factors that may exist for one group and not another. Fisher et al. (2002) suggested best practices for working with minority student populations. The authors warned researchers performing comparative studies between White and minority students that the effect of racially specific moderating factors may be overlooked and unique aspects of minority youth development may be disregarded. In essence, finding that some students are experiencing higher levels of school engagement than others will do little else other than show that ethnic groups tend to be different and misrepresent that one group is "better" than another. Focusing school engagement research on groups who are likely to share environmental and psycho-social factors can help researchers see how school engagement influences outcomes when many environmental factors are shared between participants. Otherwise, researchers will be

left simply comparing engagement levels of students based on gender or race without uncovering how engagement affects students of varying backgrounds uniquely. Focusing on one group, without comparing that group to others, will help identify how environmental factors can improve school engagement and outcomes for that group alone, without creating a "gold standard' in which one cultural group is seen as better than all the others.

A second issue in the measurement of school engagement lies in how researchers tend to create engagement surveys. Many school engagement studies have relied on national surveys of students from across the country as their participants (Johnson, Crosnoe, & Elder, 2001). Researchers then dissect the surveys that were given to the students, find questions that appear to relate to one, two, or all of the school engagement paradigms, and then use the students' responses from these questions as a measure of school engagement. There are two issues when conducting research in this way. First, authors rarely attend to measurement invariance when looking at these survey questions and assessing whether they will be interpreted in the same way across all groups of students. *Measurement invariance* refers to the interpretability of an instrument, or how well it can be understood by those who are intended to use it. For instance, an instrument measuring technology safety practices may ask "how often do you backup your JPEG, MPEG, and WMP-4 files?". Those who know what these acronyms stand for would be able to answer the question, but some individuals with a lower amount of computer literacy may not be able to answer the question appropriately. The same is true for those who are measuring school engagement; a question that appears to be straightforward to a

researcher could be misinterpreted by students who are not familiar with the vernacular, leading to inaccurate results. Wang, Willet, and Eccles (2012), when creating their school engagement instrument, accounted for measurement invariance by conducting a Confirmatory Factor Analysis (CFA) to ensure that questions were being interpreted in the same manner across male and female students as well as students of various ethnicities. If this step were not taken, then it would be inappropriate to compare the scores of students across gender and ethnicity because there would be no guarantee that all groups would understand the content similarly (Glanville & Wildhagen, 2007).

Also, choosing questions that appear to be connected to school engagement does not guarantee that the question is in fact representative of school engagement. Some researchers who have used a national sample of students from the ADDHealth survey (Johnson, Crosnoe, & Elder, 2001; Mo & Singh, 2008; Sirin & Rogers-Sirin, 2004) have used the question "in the past year, how often have you had trouble getting homework done?" as part of a measure of behavioral school engagement. This question seems to imply that students who struggle with homework have a lower level of engagement than students who do not struggle. In reality, a student may struggle considerably with homework but may still be highly engaged in school. For example, a student who is asked to complete an extensive literature review for a class paper may struggle with such an assignment, especially if this is the first time a student has written a paper of this length. This hypothetical student may take a considerable amount of time on the paper and may utilize school and family resources (e.g., talking to the teacher outside of class, asking family members for help) in order to complete the assignment. If this student read

the question above, they may answer that they have struggled considerably with homework, but, at the same time, this student by other measures would be considered a highly engaged individual. Therefore, the question above seems to be an inaccurate measure of behavioral school engagement, yet is often used as such.

Other studies have attempted to address inaccurate reporting on survey research by relying on teachers to report student behaviors in class as a measure of student engagement (Voelkl, 1997). A problem with this method is that teachers can misinterpret student behaviors and may misreport the engagement level of a student. A student in class who stares out a window may be seen as "spaced out" by the teacher, but it may also be possible that starring at a fixed point is how this student digests information. Without asking the student directly how often they pay attention in class or listen to the teacher, the student's behaviors are unable to be interpreted accurately by an outside observer.

While there are several ways in which the methods for studying school engagement can be improved upon, finding what impacts school engagement is also of paramount importance. School engagement acts more as a barometer of how a student is thinking, feeling, and acting in school. Finding what affects these thoughts, feelings, and actions is the next step in understanding how a child engages, or does not engage, with his or her school.

**Bioecological Theory**

While the three parts of school engagement are important to take into account when understanding how a student connects with school, what is of equal importance is

what tends to impact the school engagement of students and, subsequently, their school related outcomes. Bronfrenbrenner's Bioecological Theory (1979) posits that environmental factors can often have a large impact on individuals in any system. Bronfrenbrenner argued that people, objects, and symbols in a person's immediate environment have the potential to engage an individual in interactions over time. If these interactions happen on a fairly consistent basis for an extended period, then they can influence the development of the person or persons with whom they are in contact. These "proximal processes" with objects, people, and symbols in the immediate environment are the cornerstone of Bronfrenbrenner's theory of development. It is with this theory in mind that many researchers have investigated the environmental stressors that either support or inhibit a student's school engagement. What has been found is that the people who are in closest contact with a student (e.g., parents, teachers, and peers), or in the student's "microsystem" according to Bronfrenbrenner, tend to have a significant impact on how that student engages, or does not engage, with school. These relationships with parents, teacher, and peers are termed "social support" by researchers.

**Social Support**

Social support is commonly referred to as "an individual's perceptions of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhances their functioning or may buffer them from adverse outcomes" (Demaray & Malecki, 2002, p. 215). An important aspect of this definition lies in the part that says that "people in their social network" will help to protect individuals from adverse outcomes if they are providing a supportive relationship. In the

literature on social support; parent, teacher, and peer support are the three factors that commonly are examined. Because students spend such a huge amount of time around their classmates, teachers, and their parents, it would make sense to study how these three social influences contribute to a student's engagement and their overall functioning in school.

Teacher support appears to have a strong connection to many student outcomes. In a national study of 379 public middle and high schools (assessed between October 31, 1996, and February 15, 1997) representing 1,815 students (62% White), Rosenfeld, Richmond, and Bowen (2000) found that perceived teacher support is "a *necessary* condition for positive school behavior, affect, and outcomes" (p. 219). The authors also concluded that "the consequences of support appear to be greatest for three school affect variables: school satisfaction, *engagement*, and self-efficacy" (p. 219). Researchers studying the effect of teacher support on Latino populations have found similar positive effects. Authors have found that the effect of teacher support on school engagement contributes above and beyond the effect of peer and parental support, leading to higher school engagement, increased meaningfulness of school, better school behavior, and higher school satisfaction (Brewster & Bowen, 2004; Garcia-Reed, Reed, & Peterson, 2005; Wolley, Kol, & Bowen, 2009).

Peer support is another area of social support that has the potential to impact school engagement as well as other outcomes for students. Research on peer support indicates that having high levels of support from peers who are engaged in school has the potential to increase school engagement for students (Brophy, 1999; Li et al. 2011a;

Purdue, Manzeske, & Estell, 2009). Of note, some researchers have not found a significant relationship between peer support and school engagement (Shin, 2007), and some have revealed a negative relationship between peer support and school engagement (Simmons-Morton & Chen, 2009). These confounding results seem to indicate that the kind of peers that students are around will impact the amount of school engagement that they experience. Students in the Simmons-Morton and Chen (2009) study said that they felt greatly supported by their peers, but also that their peers did not value school. It would then appear that feeling supported by peers is not enough to increase school engagement and outcomes, but the attitudes that these peers have is also a factor in predicting positive outcomes for students.

Parent support is another area that is linked with many positive outcomes. Academic self-efficacy (Alliman-Brissett & Turner, 2010; Plybon et al., 2003), increased GPA (Plybon et al., 2003), and future career decision making (Gushue & Whitson, 2006) are all outcomes that were found in samples of students who experienced high levels of parent support. Other studies also identified positive benefits to increased parent support, finding that students who experienced high levels of parent support had fewer behavior problems (Rockhill et al., 2008), fewer depressive symptoms (Rockhill et al., 2008), decreased levels of underage drinking (Turisi et al., 2001), increased school engagement (Woolley & Bowen, 2007), and increased life satisfaction (Stewart & Suldo, 2011).

**Past Methods of Studying Social Support.** Studies on social support indicate that there are numerous positive outcomes that are associated with increased levels of support, yet the manner in which these studies were conducted may limit their

applicability. Age is an issue that needs to be addressed, as most authors have examined elementary school (Rey at. Al, 2007), middle school (Li et al., 2011a, Ream & Rumberger, 2008; Simmon-Morten & Chen, 2009), and college populations (Guiffrida & Douthit, 2010; Harper, 2006) when looking at social support. This is surprising as many studies on school engagement indicate that high school is a time when students can expect to experience their lowest levels of school engagement and numerous deleterious effects associated with it (Wang & Eccles, 2012). It is also understood that the developmental needs of high school students vary greatly from students in lower grades, as high school students tend to value interaction more with peers and adults outside the home (such as teachers and coaches) compared to their own parents (Roeser et al., 1998). This means that high school is a point where school engagement is at its lowest, and yet researchers are less informed about how the sources of social support affect the school engagement of students in this age group.

Ethnic diversity is another key variable, as most studies on teacher and peer support focus on either White or Latino samples of students. Authors who have focused on social support with African American samples appear to concentrate heavily on how parent support affects African American outcomes. Although the impact of parent support appears to be significant on the academic endeavors of African American students, understanding the impact of teacher and peer support may prove to be just as valuable, especially since some research points towards "other adult support" (like teacher support) as being very important to African American students, as it is seen as more difficult to attain than peer and parent support (Stanton-Salazar, 1997).

Finally, the method of analysis used in most social support literature limits the extent to which we can understand social support. Most articles on social support focus primarily on one or two form(s) of support (either parent, teacher, and/or peer) and how that support connects to one or a variety of outcomes. This kind of research creates a narrow pathway that does not allow for the multiple kinds of social support to be examined at the same time for their relative impact. For example, Brewster and Bowen (2004) looked at how the three forms of social support affected the academic outcomes of Latino students using hierarchical linear regressions. Although the authors found that all three forms of social support (teacher, peer, parent) link to outcomes for students; teacher support contributed nearly twice as much to the outcomes as both parent and peer support. Conducting this same kind of research with other ethnic groups would help researchers to understand how the three forms of support affect various outcomes of student development, and how much variance they contribute to a variety of school based outcomes.

Taken together, past efforts on measuring school engagement and social support have created a gap in the literature. African American male high school students are underrepresented in the social support literature and the effect of the three kinds of social support have been studied in relative isolation from one another. Efforts to measure school engagement also have issues, as school engagement is often measured without using validated instruments and is focused on comparing two groups rather than looking deeply into the effects of school engagement within one group.

## Statement of the Problem

School engagement researchers typically have utilized large samples of participants (Dotterer & Lowe, 2008; Johnson, Crosnoe, & Elder, 2001; Sciarra & Sierup, 2008; Wang & Eccles, 2012), with engagement measures created by using questions from pre-existing surveys (Johnson, Crosnoe, & Elder, 2001), and with school engagement conceptualized as a uni-dimensional or bi-dimensional construct (Finn, 1993; Voelkl, 1997). Such practices have created several flaws in the research base. First, by using large samples of participants from many backgrounds, researchers have been able to compare students of various ethnicities and genders on their school engagement levels. This approach sheds light onto which groups have higher or lower engagement levels, but does not allow insight into how school engagement affects any particular group. Second, by using survey questions from pre-existing questionnaires that are not directly attempting to measure school engagement, researchers are not certain if they are actually measuring school engagement. Third, it has not been until recently that school engagement has been characterized as a three dimensional construct (Fredericks et al., 2004). As a consequence, some earlier landmark studies in school engagement have used measures that reflect only one or two distinct areas (Finn, 1993; Voelkl, 1997), meaning that studies reflecting all three areas of school engagement (behavioral, cognitive, and emotional) are sparse.

Researchers who study social support have typically used participants in elementary school, middle school, and college (Guiffrida & Douthit, 2010; Harper, 2006; Li et al., 2011a; Ream & Rumberger, 2008; Rey at. Al, 2007; Simmon-Morten & Chen,

2009) and have focused on Latino or White samples (Simmons-Morten & Chen, 2009; Li et al., 2011a; Ream & Rumberger, 2008; Rosenfeld, Richmond, & Bowen, 2000; Garcia-Reed, Reed, & Peterson, 2005; Brewster & Bowen, 2004). In addition, some researchers have examined the effects of some sources of social support, but have not investigated parent, teacher, and peer support in total (Alliman-Brissett & Turner, 2010; Kalil & Ziol-Guest, 2008). This means that the impact of parent, teacher, and peer support has not yet been examined at the same time with African American male high school students. This is surprising, as high school is a time when peer relationships and relationships with adults outside the home take on greater significance in the lives of students (Roeser et al., 1998). In addition, support from teachers is thought of as especially important to African American students, as it is often seen as more difficult to attain (Stanton-Salazar, 1997). This points towards high school as a time when relationships take on new meaning to students, yet researchers remain unaware of how these evolving relationships affect African American male students' engagement with school.

## Purpose of the Study

The purpose of this study is to examine the impact of teacher support, parent support, and peer support on the cognitive, emotional, and behavioral school engagement of African American male high school students and how this connects to a school related outcome, mainly, math grades. This study fills several important gaps in the literature by being the first to focus on social support and school engagement solely with African American male high school students. This study is also the first to examine how the multiple sources of social support connect to the multiple sources of school engagement

simultaneously, and then connects these pathways to an academic outcome (grades). The results of this study will help practicing school counselors by highlighting important relationships in the lives of African American male high school students, allowing for counselor to target these relationships in their own schools as potential sources for improving student outcomes.

## Research Questions

In this study, the relative impact of social support on school engagement and its connection to student grades among a sample of African American high school students will be studied. The research questions that will be examined are diagramed in Figure 1 showing paths from social support to school engagement to student grades, which illustrate research questions 2, 3, and 4.

RQ1: Are there significant differences between lower level ($9^{th}$ and $10^{th}$ grade) and upper level ($11^{th}$ and $12^{th}$ grade) African American male high school students in cognitive school engagement, behavioral school engagement, and emotional school engagement?

RQ2: Are parent support, peer support, teacher support, and close friend support significantly correlated with student grades?

RQ3: Are behavioral school engagement, emotional school engagement, and cognitive school engagement significantly correlated with student grades?

RQ4: To what extent are the significant paths from social support (parent, teacher, peer, close friend) to grades mediated by school engagement (behavioral, emotional, and cognitive)? This research question is diagramed below in figure 1.

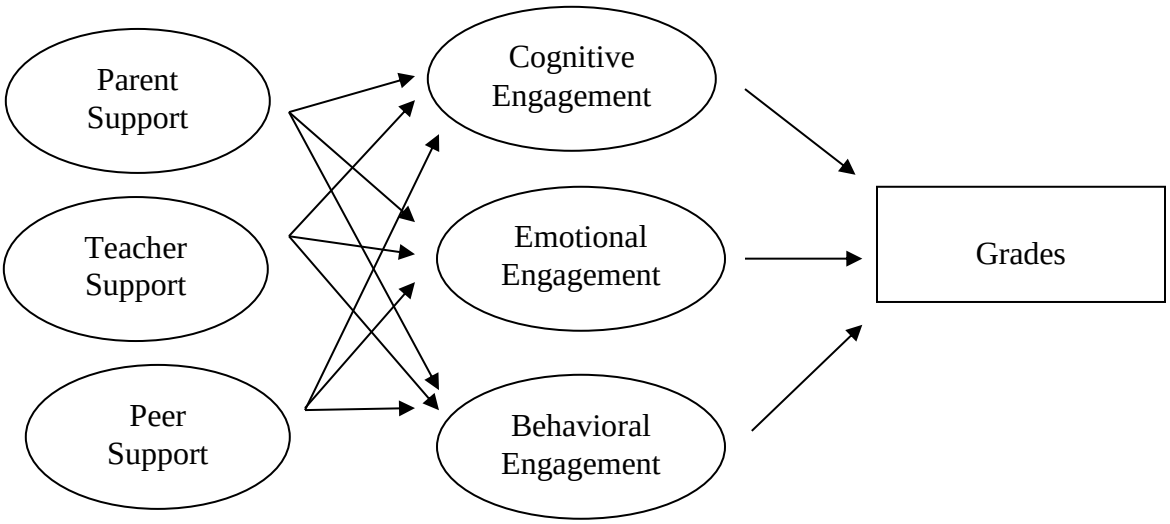


**Figure 1. Mediating Path Analysis (research question 4)**

## Need for Study

The current study will address important gaps in the social support and school engagement literature. Researchers on school engagement have typically compared students of different ethnicities and genders (Wang and Eccles, 2011; Johnson, Crosnoe, & Elder, 2001), allowing researchers to find differences between groups but unable to identify how engagement reacts within a specified culture. Studies of this nature typically rely on large, representative samples of students from all over the United States, and then researchers extract questions from these surveys that appear to measure the three forms of school engagement. The first issue with conducting research in this maner is that the questions researchers deem as representing school engagement are often not validated, meaning that they may not actually measure school engagement. What seems

to be measuring engagement through the eyes of a researcher may be interpreted quite differently through the eyes of a high school freshman from a minority cultural. The second issue is that conducting research in this maner does not allow for an in-depth analysis of how school engagement affects students of a specified ethnicity. Large national samples can show basic differences in engagement levels between two groups, such as between White and Black students, but these research designs often do not take into account all of the factors that often affect one ethnicity more than another. Conducting research in this way allows researchers to find which race has higher or lower levels of engagement than another, but does little to show how engagement varies within each cultural group.

A second issue with current efforts to measure school engagement is that African American male high school students are largely underrepresented in the literature. This is somewhat surprising because African American male students often experience more negative outcomes in school as compared to others (Garibaldi, 1992; US Department of Education, 2010). Gaining a greater understanding of how school engagement affects this group may help with implementing strategies in schools to increase engagement of African American male students.

The current study will also address issues that are inherent in the social support literature. Most researchers on social support to date have focused on a very young or college aged population (Rey at. Al, 2007; Li et al., 2011a, Ream & Rumberger, 2008; Simmon-Morten & Chen, 2009; Guiffrida & Douthit, 2010; Harper, 2006), have looked at only one or two sources of support in relation to specified outcomes (Kalil & Ziol-

Guest, 2008; Alliman-Brissett & Turner, 2010), and have focused mainly on White and Latino students (Simmons-Morten & Chen, 2009; Li et al., 2011a; Ream & Rumberger, 2008; Rosenfeld, Richmond, & Bowen, 2000; Garcia-Reed, Reed, & Peterson, 2005; Bewster & Bowen, 2004). When all of these limitations are taken together, we are left with a literature base that largely ignores African American students in high school and also has not yet looked into the effects of *all* sources of social support on African American students. Also, the relative impact that teachers, parents, and peers have on African American high school students' school engagement is unknown, as research models looking at social support tend to focus on whether each source of support is significant, but fail to see the variance explained by each.

To remedy these issues and holes in current research, this study used a Path Analysis to test the relative effect of sources of social support on the school engagement of African American high school aged male students (an under-researched group), and then connected the three areas of school engagement to student grades. The results of this study will give school counselors a clear pathway of which relationships are significant contributors to African American male students' success in school. By locating which relationships are important, school counselors could then tailor their counseling programs to foster these relationships, knowing that increasing the perceived relationship quality will aid part of their student population academically. With growing concern mounting about the decrease in funding that is being allocated to school systems, counselors will be able to use this research as a basis for directing their time and resources towards improving key relationships in a student's life.

## Definition of Terms

*African American male* or *Black male* – Any person who self-identifies as being either African American or Black and also self-identifies as being male.

*High school student* – A person who is currently enrolled as a student between grades 9-12 in a public, private, or charter school.

*Cognitive engagement* – The psychological investment in learning, a desire to go beyond the requirements, and a preference for a challenge (Connell & Wellborn, 1991; Newmann et al., 1992; Wehlage et al., 1989). (As described in Fredericks et al., 2004 pp. 63-64).

*Behavioral engagement* – following school rules, adhering to class norms, not skipping school (Finn, 1993; Finn, Pannozzo, & Voelkl, 1995; Finn & Rock, 1997; Voelkl, 1997), involvement in learning through effort, persistence, concentration, attention, asking questions, contributing to class, discussion (Birch & Ladd, 1997; Finn et al., 1995; Skinner & Belmont, 1993), and participation in extracurricular activities and/or school governance (Finn, 199; Finn et al. 1995). (As described in Fredericks et al., 2004 p. 62).

*Emotional engagement* – A student's affective reactions in the classroom, including interest, boredom, happiness, sadness, and anxiety (Connell & Wellborn, 1991; Skinner & Belmont, 1993). (As described in Fredericks et al., 2004 p. 63).

*School engagement* – The combination of cognitive, emotional, and behavioral engagement.

*Social support* – an individual's perceptions of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhances their functioning or may buffer them from adverse outcomes. (Demaray & Malecki, 2002, Pg. 215).

## Brief Overview

This dissertation is organized in five chapters. The first chapter has introduced the topics of school engagement and social support including a statement of the problem, purpose of the study, rationale for conducting the current research, and research questions. Chapter two includes a review of relevant existing literature, including theoretical and empirical support for the current research. Chapter three consists of a detailed description of the research design and methodology used in the current study, including hypotheses to be tested, sampling procedures, instrumentation, and procedures. Chapter four includes the results of the analyses used to test the research hypotheses. Finally, chapter five includes a discussion of the results, implications for the counseling field, recommendations for future research, and limitations of the study.

# CHAPTER II

# REVIEW OF RELATED LITERATURE

## Chapter 2: An Overview

Chapter 2 will be broken into three main parts. Part 1 will outline the current trends of African American male students in school, will present the challenges that African American male students face in and out of the school system, will present a brief historical perspective of racism in America, and will discuss the effort of researchers to study and enhance academic outcomes for African American males. Part 2 will introduce school engagement as an emerging paradigm for understanding student achievement, will give a historical context of the evolution of school engagement, will discuss and critique the patterns seen in the school engagement literature, and will present future directions in the field of school engagement. Part 3 will begin with Bronfrenbrenner's Ecological Theory as a conceptual framework for understanding the impact of social support on school engagement and academic outcomes, will present a definition of social support, will examine current literature connecting teacher support, peer support, and family support to student outcomes, and will critically examine the social support literature on high school aged African American male students. The chapter will then synthesize the literature presented into a vision for how the current research will address gaps in order to add to the current research base.

## African American Male Students in the U.S. School System

The first section of the literature review will focus on African American male students in school. This section follows with an overview of the benefits of matriculation, the current outcomes of African American male students in school, challenges facing African-American male students, a brief background of issues with discrimination in the U.S., and past efforts to improve African-American male student performance.

### Benefits of Graduation

Students who attain a degree, either in high school or college, can expect to enjoy many benefits in life that those who do not attain a degree tend not to experience. In terms of overall income, the difference between degree completers and non-completers is astounding. According to Stanard (2003), in a study looking at high school graduates and non-graduates in the year 2000, 56% of those who dropped out of high school were unemployed compared to 16% of high school graduates. Employment rates are a large factor in determining why those who dropout of high school earn on average $12,400 per year, while high school graduates earn $21,000 per year on average (Campbell, 2003-2004). The jump in income for bachelor's degree holders is also substantial, as those with a bachelor's degree earn over three times as much in a year as high school dropouts ($41,000 on average), resulting in an average net income of three million dollars more over a lifetime (Gnuschke & Wallace, 2004). In addition, students from low-income families are 2.4 times more likely to drop out of high school themselves compared to students from a middle-income background (Coalition for Juvenile Justice, 2001). It seems that dropping out of school does not just affect an individual, the decision to drop

out affects future generations as well; perpetuating a cycle of failing to gain an education and then suffering the economic burden associated with it.

There are also distal benefits to gaining an education beyond increased income. College graduates are nearly half as likely to experience high blood pressure, high cholesterol, diabetes, obesity, current smoking, and physical inactivity as compared to high school non-completers (The Benefits of Higher Education, 2006). Graduating with a high school degree also appears to be correlated with benefits, as those who graduate high school have significantly fewer reported mental health illnesses (Fine & Zane, 1989: Haynes, 2002) lower rates of drug use (Mensch & Kandel, 1988; Goulding, Chien, & Compton, 2010), increased psychological functioning (Kaplan, Damphousse, & Kaplan, 1994), and lower rates of suicidal behavior (Thompson, Eggert, Randell, & Pike, 2001; Eggert, Thompson, Herting, & Nicholas, 1995) as opposed to those who drop out of high school.

Having students succeed in school does not only benefit the individual, it also benefits society as a whole. High school dropouts constitute 52% of welfare recipients, 82% of the prison population, and 85% of juvenile justice cases (Standard, 2003). In order to maintain these social systems, a huge amount of money must be allocated to their upkeep and maintenance. Lunenburg (1999) estimated that the average amount spent on social services, taxes, and lost wages for high school dropouts in the United States is $250 billion annually; two and a half times the amount spent on public education by the U.S. federal government in 2012. In order to pay for these social services, the burden falls on those who have a high school degree or higher, as those who have dropped out of

school contribute too little tax revenue to the U.S. economy to pay for the continuation of these services (Hayes, Nelson, Tabin, Pearson, & Worthy, 2002). Thus, having a more highly educated workforce benefits society broadly.

In all, having students succeed in school benefits everyone. Individuals can expect higher income and a better overall standard of living as they increase their education. Society also benefits from having a more highly educated workforce, as having more individuals with degrees shows a correlation with a decreased need for social services; which decreases national spending. With so many benefits, individually and collectively, to having a more highly educated workforce, it is little wonder that education research has been focused in recent decades on how to encourage students to succeed in school.

**Outcomes of African American Male Students in School**

Unfortunately, success in education is not equally attained by everyone. African-American male students consistently struggle more than other groups to achieve educational success, whether this is graduation from high school (Lee, 1992; Feldman, 1993; Schott Foundation for Public Education, 2010), college (Harper, 2012; Harper & Kuykendall, 2010), or community college (Ellison & Martin, 1999; Garza, 1994; Texas Higher Education Coordinating Board, 1999). For example, only 47% of African American men graduated with their high school peers in their entering cohort in 2008 (Schott Foundation for Public Education). Furthermore, only 34.1% and 31.5% of African American men entering college in 2009 gained a bachelor's or associate's degree,

respectively; which is half the graduation percentage of African American female students in the same year (U.S. Department of Education, 2010b).

When African American men do not gain an education, they are unable to reap the benefits that education provides; resulting in dismal employment opportunities, jobs with low wages, poor health, and an increased risk of becoming involved in the criminal justice system (Harvey, 2008; Levin et al., 2007; Green, 2008). Working low wage jobs then forces uneducated African American men to live in low-income communities, where schools are likely to have fewer opportunities for students and a less qualified and unmotivated teaching staff (National Commission for Teaching and America's Future, 1996; Scafidi et al., 2005; Education Trust-West, 2005; Hammond, 2004). This further exacerbates educational disparities, as future generations of African American male students are put into sub-optimal schools where gaining a quality education is more challenging. This unequal access to educational opportunity for African American male students is a serious issue nationally and one that needs to be addressed.

**Challenges Facing African American Male Students in Schools**

Researchers studying the unequal educational attainment of African American males have identified challenges many of these students face within the school system that may contribute to the outcomes listed above. First, the socio-economic status (SES) of many African American male students can have a serious impact on educational opportunities. Adults who work within the school system tend to treat students of lower SES as less academically capable than others (Morrow & Torres, 1995). This is especially harmful for African American students, as more than one out of every three

African American students under the age of 18 lives in poverty (Children's Defense Fund, 2010). The result of this perception means that students classified as low SES are disproportionately funneled into special education classes; resulting in poor, African American male students being most likely to be placed in these low-performing school tracks (Harry et al., 2000; U.S. Department of Education, 2005). This creates a dynamic within many schools where affluent, White students are often seen in advanced or honors classes, while African American male students are more often seen in standard, career track, or special education classrooms (Losen & Orfiled, 2002; Fletcher & Zirkle, 2009); creating a visible divide in many schools that further negatively stereotypes African American male students as educationally inept.

The socio-economic setting of many African American students also affects the environment in which these students live. Schools in low SES neighborhoods are often staffed with under-qualified, inexperienced teachers and staff (Darling-Hammonds & Berry, 1999; Ladson-Billings, 2011; National Commission for Teaching and America's Future, 1996; Scafidi et al., 2005; Education Trust-West, 2005; Hammond, 2004). In fact, Fryer and Levitt (2004) found that African American students who attended majority White schools had significantly better academic outcomes than those who attended majority African American schools, perhaps indicating that differences in school quality can account for some of the Black-White achievement gap. Also, low SES neighborhoods are often characterized by high crime rates, both inside and outside of the classroom, creating an unsafe atmosphere and making it difficult for inhabitants to concentrate on school (Bowen & Bowen, 1999; Daly et al. 2009). These characteristics

of low SES neighborhoods create added burdens for low-income African American male students.

The racial stereotype attributed to many African American male students by school personnel impedes the ability of this group to succeed in school. Researchers maintain that terms such as *endangered*, *uneducatable*, *dysfunctional*, and *dangerous* are often used to describe African American men (Jackson & Moore, 2006; Majors & Billson, 1992; Parham & McDavis, 1987; Strayhorn, 2008; Palmer & Maramba, 2010). In schools, teachers and counselors act on these stereotypes, and impose more negative academic expectations on African American males than White students (Jones, 2002; Ogbu, 2003; Ferguson, 2003; Davis & Jordan, 1994; Tettegah, 1996). Teachers do not only expect less of their African American male students, they also doubt their own ability to have any impact on African American male student success (Lynn et al., 2010). Perhaps this is why Fletcher & Zirkle (2009) found that African American students were more likely to be placed in career/technical specific tracks in school while White and Asian students were more likely to be placed in classes meant to prepare them for college. Just as students of low SES backgrounds are unequally placed into low-level remedial classes, African American male students are also disproportionately categorized as having a learning disability and placed in special education classrooms (Harry et al., 2000; Milofsky, 1974; Holzman, 2006; Noguera, 2005). Currently, this has resulted in African American males being five times more likely than White females to be placed in special education (Parrish, 2002). Exposure to this low-level academic environment means that African American male students lag behind other groups academically even after SES is

controlled for (McGuire, 2005) and are often unprepared for the academic rigors of college even when they do graduate from high school (Hooks, 2004).

The pressure that many African American male students place on themselves in school can affect their performance. Steele and Aronson (1995) were the first researchers to experiment with the impact of *stereotype threat* on African American students, and found evidence for its detrimental effect. *Stereotype threat* refers to the pressure that students experience when taking a standardized test to not reinforce negative stereotypes about people of their culture (i.e. *endangered, uneducatable, dysfunctional,* and *dangerous* in the case of African American male students*)*. Steele and Aronson (1995) found that African American students performed significantly worse on a standardized test when told that it was being used to measure their inherent academic ability as opposed to a similar group of African American students who were told that the test was being used to measure psychological processes in verbal problem solving. The negative effects of stereotype threat does not appear to impact all cultural groups, as researchers have found that White students are unaffected by stereotype threat on high-stakes testing, yet African American students tend to see a significant decrease in academic performance (Kellow & Jones, 2008; Taylor & Walton, 2011). Stereotyping puts a strain on African American students academically that White students appear not to encounter. While this line of research is limited, there are some research findings that indicate that African American male students do understand the negative stereotypes are placed on them and are concerned with disproving them through their academic performance (Gales, 2006).

The punishments that African American males experience in school are far more frequent and severe than other students. African American males are more likely to be expelled or suspended than any other group (Meier, Stewart, & England, 1998; Simmons et al., 1991). This trend remains even after SES is controlled for (Skiba et al., 2000). These punishments are likely to be delegated to African American male students for minor offenses (Sandler, Wilcox, & Everson, 1985; Skiba & Peterson, 1999; Studley, 2002). It has also been shown that even when students of other races exhibit identical behaviors, African American male students are more likely to be disciplined (Emihovich, 1983; McCadden, 1998; Studley, 2002). This discrepant disciplining behavior can be seen even on the macro level, as the Maryland State Department of Education (MSDE) in 2001 found that their state's student population was comprised of 37% African American students, yet 54% of all school suspensions were delegated to African American students, most of which were African American males (MSDE, 2001). This pattern of disproportionately chastising African American male students is not new. Irvine (1985) found that teachers in 70 elementary classrooms in the1983-84 school year were more likely to make negative comments about African American male student behavior than any other group. School discipline procedures, such as suspensions or expulsions, take students out of the classroom and decrease their learning time; accelerating academic discrepancies between them and their peers (Coleman & Vaugn, 2000), creating a dynamic where African American male students are removed from class and then fall behind their peers academically.

In sum, African American male students encounter many challenges in school that limit their ability to succeed. Being placed in low-level classes, either due to SES or racial prejudices, stunts the education opportunity of many African American male students, making it difficult to graduate from high school and succeed in post-secondary education. In addition, the stress of performing poorly in school and affirming negative stereotypes contributes to academic stress for African American male students. Harsh punishments imposed by school personnel also hurt African American male students, as these punishments typically take students out of the classroom and create a learning deficit that African American males struggle to overcome. These institutional barriers make it more difficult for many African American males to succeed academically compared to other groups.

**Discrimination in the Past and Present**

Discrimination in the education system has existed since the founding of the United States. Until the passing of the Civil Rights Act of 1964, African Americans had unequal treatment under American law. Even in present day, when all citizens have equal legal rights regardless of race, there still exist inequalities between White students and students of color. Jones (1998) describes these two periods in American history as the "Old" American Dilemma vs. the "New" American Dilemma.

The "Old" American Dilemma refers to a time period before 1964, where unequal treatment of African Americans was written into the law of the U.S. During this period, the fight for justice had a clear aim: equal protection under the law was needed and would lead to equality in society for all citizens. Jones (1998) cites Contact Theory

(Allport, 1954) as the main driver for ending racial segregation. According to Contact Theory, continued interaction across racial lines encourages individuals to recognize how similar they are, and encourages an equal, fairer interaction between all races and in society as a whole. In essence, during the "Old" American Dilemma, it was thought that equal legal rights would usher in an era where skin color no longer mattered and all American citizens would be judged by their inner qualities instead of exterior appearance.

The "New" American Dilemma began after the passage of the Civil Rights Act of 1964. At this point in history, all citizens in the United States have equal rights and protections, segregation legally ended, and according to Allport (1954), the increased interaction between Whites and African Americans would lead to greater understanding and an end to racial prejudice. But, it seems this has not happened. Some thirty years after equal rights under the law have been established, African Americans and Latinos earn half the average income per household as White families, have 30% of their population living in poverty (as opposed to 11% of Whites), and are one-third as likely to earn a college degree compared to Whites aged 25-29 (Jones, 1998). This continued gap in both living conditions and educational attainment between Whites and minorities is of great concern.

**Contrasting Views for Addressing Racism.** The "New" American Dilemma is now a question not of *if* racism should be allowed (such as in the "Old" American Dilemma), but *how* to improve the continued racial disparities that persist in modern society. Jones (1998) characterizes two general ways of working toward racial equality: Neo-Conservatism and Critical Race Theory. Neo-Conservatives argue that the only true

way to combat racism in society is to completely disregard race and treat everyone as equal. In this vein of thinking, institutional reforms such as affirmative action and race-based hiring practices only perpetuate negative racial stereotypes and further harm society. To intentionally ignore race, therefore, is the pathway towards equality. Critical Race Theorists, on the other hand, argue that even though laws are in place to create equality in society, there still persists a lingering underlying racism that promotes White agendas and blocks people of color from advancing. Critical Race Theory maintains that racism in American society is an ordinary, everyday occurrence, making racism difficult to eradicate (Delgado & Stefancic, 2001). Colorblind laws and rules, therefore, can only address the most blatant forms of discrimination, but do not address imbedded societal practices that serve to separate based on race. To prove this point, Delgado and Stefancic (2001) share that the number of African American students who now attend segregated schools is not different than prior to *Brown vs. Board of Education*. While the *Brown* ruling specifically outlaws intentional school segregation due to color, it does not address the socio-economic status (SES) that separates White and African American students. Delgado and Stefancic (2001) share an example of how SES and race can contribute to unequal educational opportunities:

> A few scholars address issues such as housing segregation in terms of both race and class, showing that black poverty is different from almost any other kind. Real estate steering, redlining, and denial of loans and mortgages, especially after the end of World War II, prevented blacks from owning homes, particularly in desirable neighborhoods. It also excluded them from sharing in the phenomenal appreciation in real estate property values that the last few decades have brought. Confinement to certain neighborhoods, in turn, limits where black parents may send their children to school and so perpetuates the cycle of exclusion from

> opportunities for upward mobility that have enabled poor whites to rise. (pp. 107-108)

As seen in the quote above, unequal housing practices have given White families access to a booming housing market that African American families were historically barred from. This means that even when equal rights to schools were guaranteed under the law, the economic discrepancy that exists between White and African American families still creates a barrier to educational advancement for families of color. Indeed, these discrepancies in educational attainment and representation in poverty are clearly seen between races even today (Jones, 1998). According to Critical Race Theory, the way to promote equality is to acknowledge the systems that continue to perpetuate racism in society despite current laws (especially within education systems) and to address them directly.

In today's society, this creates a situation where the educational inequalities between racial groups are clear, but there is not a consensus of how best to address the issue (Jones, 1998). Neo-Conservatives believe that the key to racial equality is to treat everyone as equals under the law and to ignore race entirely. Critical Race Theorists call into question trends taking place in society even after the Civil Rights Movement guaranteed equal rights for all races, and contend that ignoring race is, in fact, ignoring the issue. Critical Race Theorists posit that there are social and systemic aspects of America that work to maintain White supremacy despite civil rights laws, which is why disparities between Whites and people of color exist today, nearly fifty years after the

passing of the Civil Rights Act. According to Critical Race Theory, all members of society must become conscious of race if true equality is to take root.

## Efforts to Address Challenges of African American Male Students

Researchers who espouse to Critical Race Theory have taken it upon themselves to develop culturally aware interventions that can address inequalities that are being seen in our nation's schools. Listed below are reviews of various approaches that researchers have focused on in order improve the academic outcomes of African American male students.

**Mentoring.** Mentoring, or, the positive relationship of a non-parental adult in the life of a young person (Baker & McGuire, 2005; DuBois & Rhodes, 2006) has garnered some attention in the literature as a possible way to promote the academic achievement of African American male students. Because extensive research illustrates that creating a meaningful relationship with teachers and other non-parental adults is often quite difficult for African American males (Ascher & Branch-Smith, 2005), promoting mentoring relationships is thought to counteract the students' perception that "no one cares" (Cohen & Galbraith, 1995) and subsequently improve their relationship with academics. Gordon et al. (2009) found evidence for the positive effect of mentoring relationships as they compared a mentored and non-mentored group of middle school African American males. In this study, 61 African American middle school male students were either placed in a mentored or non-mentored group and then evaluated to see if their academic success and academic attachment scores significantly differed. The results revealed that those with mentors scored significantly higher on their eighth grade Connecticut Statewide Mastery

tests (CMT). Results also revealed that mentored students had a greater attachment to academics than the non-mentored group, meaning that mentored students saw academics as more central to their own self-worth than those who were not mentored. Grant & Dieker (2011), by contrast, found in an in-depth study of two 16-year-old African American males identified as Educationally Disturbed (ED), that providing these two students with online mentors had no impact on the students' attendance, behavior, or academics. Although, the two students selected for this study may represent more extreme students, as both had an IQ score of 66 and had reported GPAs of 2.0 and 0.25. In addition, the researcher reported that the emotional needs of these two students appeared to be met by the mentors, but a formal evaluation of emotional outcomes was not conducted.

**African American Male Teachers.** Researchers have also suggested raising the number of African American male teachers in school in order to help students perform well academically. While all teachers have the potential to be role models for students, African American male teachers can have shared knowledge, common social experiences, and a shared cultural heritage that may be essential in connecting to African American males and helping them achieve scholastic success (Jordan & Cooper, 2003). Oates (2003) found evidence for this idea by uncovering that African American teachers tend to have better attitudes towards African American students as compared to White teachers, which had a positive effect on standardized test scores for African Americans. Oates (2003) used a sample of $10^{th}$ and $12^{th}$ grade African American (n = 836) and White students (n = 7,249) as well as their corresponding teachers' perceptions of these students

to determine if teacher perception impacted student grades. Results indicated that White teachers were more likely to have unfavorable attitudes towards African American students than towards students of other races. These unfavorable attitudes (measured in grade 10) corresponded with student achievement on standardized tests in 12th grade, with African American students scoring significantly worse than White students. Still, the impact of "cultural synchronization" (matching students and teacher based on gender and race) (Irvine, 1990) between African American male students and teachers has not been well studied, despite numerous theoretical articles arguing for potential benefits. Perhaps this is due to the relative lack of African American male teachers in the general teaching population, as only 1% of all teachers in the U.S. are African American men (Lewis, 2006); this makes it difficult to study the effect of student-teacher congruence in this population.

Some authors argue that promoting increases in African American male teachers to work with African American male students is stigmatizing and should not be the focus of future school reform. For example, Brown (2012) noted that when African American male teachers are paired with African American male students based solely on their background characteristics, it undermines these teachers' mental and pedagogical capacities as highly educated scholars. Instead, some authors have called for more skilled male teachers of any race to enter the teaching profession in order to provide masculine role models to students in the female dominated education realm (Shreffler, 1998). Still, others argue that while the racial and gender matches between teachers and students can help to promote a strong connection, what is needed is an experienced and

credentialed teaching force of any background to work with African American male students. Currently, many teachers in high-minority schools are less credentialed and experienced than those in affluent, White schools (Jordan & Cooper, 2003; Darling-Hammond, 1997; Darling-Hammond, 2004), making it more difficult to match highly credentialed and experienced teachers with African American male students. In short, research findings appear inconsistent as to the benefit of encouraging African American male teachers to work with African American male students.

**Ethnic Identity.** Ethnic identity, or "a sense of group or collective identity based on one's perception that he or she shares a common racial heritage with a particular racial group" (Helms, 1990, p. 3), is another avenue through which researchers have attempted to improve African American male student outcomes. According to Cross (1995), minority students are often at many differing stages of understanding their African American racial identity. Ultimately, at the highest stage (internalization), Cross (1995) attests that one can experience parts of both African American and White cultures without the need to forfeit one culture for another. It is at these more advanced stages of identity that researchers believe African American students are better able to interact with the dominant White culture in educational systems and are able to become more academically successful (Taylor & Howard-Hamilton, 1995; Wakefield & Hudley, 2005). Harper & Quaye (2007) found evidence of this in a qualitative investigation of 32 high achieving African American men enrolled at six large public universities. The authors found that minority student organizations on these campuses were venues through which students were able to develop their identities as African American men, thereby

promoting their engagement in school. The authors argued that promoting more minority and African American oriented student organizations may promote African American male student achievement by creating venues for African American males to interact with one another and increase their ethnic identity. Datnow & Cooper (1997) found benefits in promoting ethnic identity through student interaction, among African American students in majority White independent schools in the Baltimore area. These African American males utilized a same-race peer network to affirm their racial identity, facilitate school adjustment, and support academic success. Many students reported that African American clubs and organizations were key in promoting the positive outcomes. One of the students surveyed cited a "Black Awareness Club" as being especially helpful in attempting to create a positive attitude towards African Americans at school, as this club was charged with promoting the accomplishments of African Americans and improving multicultural awareness at school. While the experimental data linking ethnic identity to student achievement is sparse, Steen (2009) compared two groups of African American elementary students (20 5$^{th}$ grade students, ten engaged in group therapy and ten used as a control group) to see if they differed in their ethnic identity levels and school behaviors after a focused group intervention. The author found that the students participating in group counseling attained significantly higher ethnic identity levels after the group ended compared to the control group, but there were no differences in student GPA or learning behaviors. In all, there appears to be some merit to promoting the ethnic identity of African American male students, but overall effects of doing so remain unclear.

**Predominately African American Schools.** Investigating the effectiveness of predominately African American schools has been a focus of researchers interested in improving African American male student academic performance. The results of this line of research have been mixed. Some authors contend that minority students who attend a Historically Black College or University (HBCU) may find that being around their same-race peers and teachers makes for a comfortable and productive learning environment (Terhune, 2008; Palmer & Gasman, 2008). African American men who attend predominately White institutions (PWI) tend to encounter additional stressors that African American men at HBCUs do not, including racism and the pressure to "not fall into the stereotype" (p. 113, Watkins et al., 2007). Palmer and Gasman (2008) note in their qualitative study of 11 African American male college students at an HBCU that the participants cited relationships with professors and administrators as influential in their persistence in college. The participants reported that faculty and staff were easily accessible and showed genuine concern for their success, creating a caring and supportive relationship that encouraged students to continue with their education and graduate with relatively high GPA's. The authors indicate that the impact of supportive relationships with faculty on student persistence is well known, but at PWIs, African American students indicate difficulties in forming these connections with professors (Rankin & Reason, 2005). Peer influence can also play a key role in HBCUs, as Palmer, Davis, & Maramba (2010) found 8 of their 11 African American male student participants indicated that being around other motivated African American students encouraged them to continue working hard in college. Such research findings indicate that there are

cultural components to promoting academic achievement among African American male students, whereby increased exposure to other motivated and caring African American students and faculty creates a better learning environment at the college level.

Interestingly, there appears to be a dearth of research on the impact of all African American high schools on student achievement and development. Researchers indicate that high schools with high proportions of minority students are more likely to be staffed with under-qualified teachers and that African American students tend to perform better in predominately White high schools (Darling-Hammonds & Berry, 1999; Ladson-Billings, 2011; National Commission for Teaching and America's Future, 1996; Scafidi et al., 2005; Education Trust-West, 2005; Hammond, 2004; Fryer & Levitt, 2004). This research is in contrast to research that investigates HBCUs. HBCUs exist to address the unique aspects of African American education that PWIs often pay inadequate attention to. High-minority high schools tend not to be created in response to unique minority education needs; rather they educate greater proportions of minority and low SES students due to their location (in low-income, urban neighborhoods) making them high minority schools by location and not by design.

While intentionally designed all African American and all African American male high schools do exist, there is little to no research examining their effect on African American male students. In fact, only one article that was found which examines the impact of separate schooling on African American male students (Hudley, 1995). The researcher conducted an experiment in which 20 middle school-aged, African American males were placed in a self-contained program within a middle school and were surveyed

to gain information on their perceived competence and perceptions of support from others. In addition, data on students' grades and attendance were also collected. This test group was compared to a group of 20 African American male students who remained in their typical school setting. Results indicated that the test group perceived themselves as more academically competent, as having more support from teachers and peers, and attended school more regularly than the group who remained in the mainstream school. This provides strong preliminary evidence for the positive impact of separate schooling on African American male students.

**Summary**

To this point, the benefits of graduation have been discussed, the educational trends of African American male students have been presented, and current efforts to address educational disparities of African American male students have been presented. In the next section, school engagement will be discussed as an emerging paradigm that is linked to many educational outcomes that are vital to school success. It will be argued that improving school engagement for African American male students could be an avenue to improve educational outcomes for this group.

## School Engagement: A Precursor to School Success

School engagement, or, how a student acts in school, feels about schools, and thinks while participating in school activities (Fredericks et al., 2004) has been at the forefront of many researchers' agendas over the past few decades because of school engagement's strong relation to student scholastic success. Students with high levels of school engagement can expect to have increased academic performance (e.g., high grade

point averages (GPA) or standardized test scores) (Csikszentmihalyi & Schneider, 2000; Newmann, Wehlage, & Lamborn, 1992; Connell, Spencer, & Aber, 1994; Marks, 2000; Skinner, Wellborn, & Connell, 1990; Alexander, Entwisle, & Horsley, 1997; Voelkl, 1997; Caraway, Tucker, Reinke, & Hall, 2003; Wang & Holcombe, 2010), decreased risk of dropping out of school (Finn & Rock, 1997; Finn, 1989; Ekstrom, Goertz, Pollack, & Rock, 1986; Ianni & Orr, 1996) and fewer discipline problems while in school (Finn & Rock, 1997; Finn et al., 1995; Eccles & Barber, 1999) compared to students experiencing low engagement. Due to the strong link between school engagement and school success, an analysis of school engagement and how it relates to African American male students in particular will shed light onto how this phenomena contributes to overall educational attainment for this population.

**The Historical Evolution of School Engagement**

School engagement is a term that has been a mainstay in the education literature since the beginning of the 20th century. Dewey (1938) was the first to conceptualize school engagement, indicating that in order for students to truly learn what is being taught in school, they must first become interested in what is being taught. Dewey expanded his theory by adding that school engagement contains two elements, that of the student and that of the environment in which the student is learning. While students will enter class with unique and various backgrounds, the educator has the ability to create learning conditions that will foster positive thinking habits. Thus, in Dewey's theory, focusing on creating a positive learning environment will help educators to better engage students. Sheppard (2011) also agrees with this conceptualization of Dewey, as the

researcher states, “The ‘business of the educator’, on Dewey’s view, is to arrange for the establishment of useful or meaningful contacts with educational resources, e.g. conditions of the local community, so that they lead to ‘growth’. Thus, the role of the teacher is to create conditions that will arouse curiosity and cultivate the development of attitudes that are favourable to the ‘best methods of inquiry’ (i.e. correct habits of mind)” (p. 118).

From Dewey’s initial conceptualization of school engagement pinpointing environmental factors as important antecedents to student engagement and ultimately success in school, early researchers began to create studies measuring the impact of environmental factors on the engagement of students and how engagement related to student outcomes. These studies varied widely in both how school engagement was measured and how the concept was defined. While some authors conceptualized engagement in terms of how students felt and thought about school (Voelkl, 1997), others conceived of engagement largely as how students behaved in school (Finn, 1993). It wasn’t until the mid-1990’s to the early 2000’s that researchers began to combine these uni-dimensional theories to create a multidimensional theory of school engagement. This newer conceptualization of school engagement contained both a psychological component (how students think and feel about school) and a behavioral component (how students act in school). Researchers found that measuring these two sources of engagement produced differing research outcomes. More specifically, researchers determined that increased psychological engagement was most commonly associated with positive feelings toward school, an increased sense of future success in life, and academic achievement; while increased behavioral engagement was most commonly

associated with a decreased risk of dropping out, decreased problem behavior in class, decreased substance use, and also increased academic achievement (Johnson, Crosnoe, & Elder, 2001; Dotterer & Lowe, 2010).

In 2004, researchers further refined the concept of school engagement as consisting of three sub-categories, ultimately becoming the preferred method for measuring school engagement. Fredericks et al. (2004) synthesized the existing empirical literature on school engagement and called for engagement to be conceptualized as containing three distinct components: emotional, cognitive, and behavioral engagement components. Fredericks et al. (2004) arrived at this three-tiered conceptualization of engagement after examining the definitions used in 43 studies that explicitly use the term "engagement". Fredericks et al. (2004) found that these definitions usually conceptualized engagement as how a student acted in school, felt about school, and thought when in school; but that researchers tended to leave out parts of the engagement definition in their studies, choosing to focus on only one or two aspects of school engagement. Fredericks et al. (2004) then took these fragmented definitions from existing studies and combined them into an overall conceptualization of school engagement. This conceptualization of school engagement is shown in the figure below.

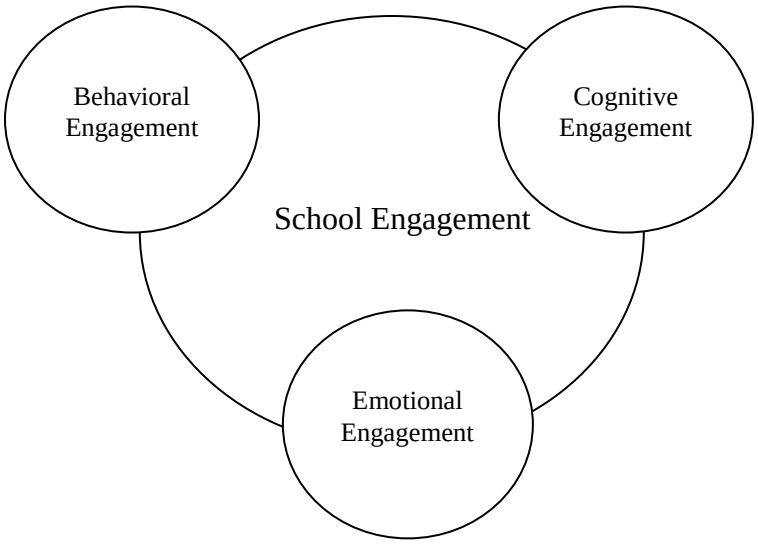


**Figure 2. Modern School Engagement Conceptualization**

*Behavioral Engagement* refers to "participation…involvement in academic and social or extracurricular activities" (pg.60). Using this definition, a student who is highly behaviorally engaged would be involved in sports or clubs sponsored by the school and would be seen working on assignments in class. Also, a highly behaviorally engaged student would be seen avoiding behaviors that limit their involvement in school, such as fighting or sleeping in class. *Emotional Engagement* refers to both "positive and negative reactions to teachers, classmates, academics, and school" (pg. 60). An example of a highly emotionally engaged student would be one that is happy to be in school and believes that school will be beneficial to his/her future. *Cognitive Engagement* refers to one's investment in school and "incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills" (pg.60). An example of a highly cognitively engaged student would be one who plans out his/her

homework each night before attempting it or a student who attempts to understand the meaning behind a homework assignment rather than completing it just so it will be done. Researchers commonly cite the literature review by Fredericks et al. (2004) and definitions of school engagement as the theoretical basis for their work such that this tripartite conceptualization appears to have become the keystone within the modern school engagement paradigm.

## Patterns in School Engagement

Within the extant research on school engagement, there are patterns that have been observed across racial, age, and gender lines. The following sections examine the literature on school engagement and outline patterns typically detected by school engagement researchers. Additionally, areas of this line of research that need further refinement in future studies are identified.

**Decreasing School Engagement as Students Progress Through School.** A common theme present within the school engagement literature is that as students get older, their school engagement levels tend to decrease (Marks, 2000; Wang & Eccles, 2012; Johnson, Crosnoe, & Elder, 2001; Li et al., 2011; Woolley & Bowen, 2007). Wang & Eccles (2012) found solid evidence of this phenomena as they examined the cognitive, emotional, and behavioral school engagement of 1,479 students as they progressed from $7^{th}$ through $11^{th}$ grade. These students were given a 19-item total scale to complete in $7^{th}$, $9^{th}$, and $11^{th}$ grade that measured school compliance (behavioral engagement), extracurricular activity participation (behavioral engagement), school identification (emotional engagement), and subjective valuing of learning (cognitive engagement) as

subscales in the measurement of school engagement; each scale showing solid internal consistency at each time point (.74 - .82). Overall, the scores of all four sub-scales decreased over time as students progressed from 7th through the 11th grade, regardless of student age or gender. Beyond the general decline in levels of school engagement over time, it appears that age and gender do play a role in the total amount of engagement experienced. Specifically, males in this study reported lower levels of each of the four sub-categories as compared to females in the 7th grade, and African-American students reported lower levels of school compliance and extracurricular activity involvement (behavioral engagement) compared to White students in 7th grade. Results revealed that African-American students had higher levels of school identification (emotional engagement) and subjective valuing of learning (emotional engagement) compared to White students in 7th grade. These findings paint an intricate picture of how school engagement evolves both within and across time, as some students experienced higher levels of behavioral, cognitive, and/or emotional school engagement at each point of measurement, yet all students experience a decrease in overall engagement levels as they got older.

Johnson, Crosnoe, & Elder (2001) found similar results pointing towards decreased school engagement over time from their large sample of 2,482 middle school students and 8,104 high school students using a cross-sectional design. The researchers employed an older theoretical framework to guide their conceptualization of school engagement; using a sub-scale for school attachment (emotional and cognitive school engagement combined) and a sub-scale for school engagement (behavioral school

engagement) to represent a two-part school engagement paradigm. The school attachment sub-scale demonstrated adequate internal reliability (Chronbach's Alpha = .77), however the school engagement subscale's reliability was somewhat low (Chronbach's Alpha = .61). For both scales, middle school students were significantly more engaged than high school students ($p < .001$). Additionally, African-American students were significantly more engaged in school than Latino ($p < .01$ in middle school, $p < .001$ in high school) or White students ($p < .05$ in middle school, $p < .001$ in high school), yet were significantly less attached than Latino students in middle school ($p < .05$) and White students in high school ($p < .05$). This indicates that African American students in this study showed higher behavioral engagement than other students, yet had lower emotional and cognitive engagement compared to Latino and White students.

Utilizing a longitudinal research design, Li et al. (2011) found evidence of decreasing school engagement with increased age even within a middle school population. The authors applied a longitudinal design with 1,676 middle school students from 6$^{th}$ to 8$^{th}$ grade and found that emotional and behavioral school engagement significantly decreased from 6$^{th}$ to 8$^{th}$ grade. The researchers used a bi-dimensional conceptualization of school engagement (emotional and behavioral engagement) using 7 total questions to capture these concepts. The Chronbach's alphas for 6$^{th}$, 7$^{th}$, and 8$^{th}$ grade behavioral engagement were .65, .68, and .79, respectively; and the alphas for emotional engagement were .67, .66, and .79, respectively. The researchers reported their results in terms of curvilinear change, which revealed that behavioral engagement actually increased from 6$^{th}$ to 7$^{th}$ grade, but then decreased sharply in 8$^{th}$ grade. Emotional

engagement decreased sharply from 6th to 7th, and less severely from 7th to 8th. The researchers noted that their results might be somewhat biased, as participants most likely to have completed two or more waves of the study were European American, female from higher income families (p. 341).

Marks (2000) conducted a study of school engagement that utilized a broad sampling strategy to include students from elementary through high school in math and social studies classes. Similar to other researchers, the results revealed that as students age, their school engagement decreases. The author used a uni-dimensional conceptualization of school engagement represented by four questions, with a Chronbach's alpha of .69. The researcher found that students in math class tended to have higher engagement levels than those in social studies classes, that female students had higher engagement levels than male students in the elementary and middle school grades, students of a lower SES had lower engagement in middle school after controlling for orientation toward school and level of alienation, and that there was no difference in engagement between students of different races. Marks measured a construct titled "alienation" (i.e., a lack of compliance to school rules and subsequent sanctions) which appears to be part of behavioral engagement (Fredericks et al., 2004). It is unclear as to why the author chose to control for this aspect of behavioral engagement on her total engagement measure. When no controls were used, the results revealed findings that females are significantly more engaged on instructional activity than males across all grade levels. Furthermore, students of higher social classes were more engaged than those

of a lower class. Overall, this research demonstrated that school engagement levels decrease for all students as they become older.

Woolley & Bowen (2007) also found evidence of decreasing school engagement over time. In their study looking specifically at a sample of middle school students (2,576 6th graders, 2,570 7th graders, 2,618 8th graders) who were at-risk for poor school outcomes, it was found that 7th and 8th grade students were less engaged than 6th grade students. The authors use an 11-item scale to measure psychological and behavioral school engagement, two items representing psychological engagement and nine representing behavioral. The two items for psychological engagement were dichotomous (yes/no) questions, yet some questions related to behavioral engagement required an ordinal response (i.e. during the past 30 days, how many hours on average did you spend studying or doing homework?). Subsequently, respondents could attain a maximum possible score of 15, where 13 of those possible points relate solely to behavioral engagement making the school engagement index largely a behavioral measure. The reliability of the school engagement index was not reported.

In total, school engagement levels for students can be expected to decrease as they matriculate throughout elementary, middle, and high school. This pattern of decreasing school engagement persists even when researchers utilize very different conceptualizations and measures of the school engagement paradigm. It also appears that researchers often use national data sets to identify study participants and then locate items within the surveys that appear to represent school engagement (Woolley & Bowen, 2007; Marks, 2000; Johnson, Crosnoe, & Elder, 2001; Wang & Eccles, 2012; Li et al., 2011).

While this approach allows authors to gain access to very large sample sizes, it sacrifices adhering to a standardized method of measuring school engagement, which is a serious deficit in this line of research. In fact, only Wang & Eccles, (2012) used three separate subscales to measure the three components of school engagement across time. While results from the literature base point towards declining school engagement as students get older, there is relatively little quality research available regarding the three theoretical areas of school engagement (i.e., emotional, cognitive and behavioral). It would strengthen future studies of school engagement to utilize a standardized measure of school engagement, one that includes behavioral, emotional, and cognitive engagement.

In the studies reported, there appear to be differences in overall school engagement experienced based on race and gender. Females appear to experience higher levels of school engagement as compared to males across studies (Marks, 2000; Wang & Eccles, 2012, Li et al., 2011) and dimensions of school engagement (cognitive, emotional, behavioral, or some combination of the three) appear to vary depending on the students' race (White versus minority) (Wang & Eccles, 2012; Li et. al, 2011; Johnson, Crosnoe, & Elder, 2001). Even so, all students, regardless of race or gender are likely to experience a decline in school engagement as they progress in school.

Even though the extant research discusses differences in overall school engagement levels, no articles were identified that made reference to the school engagement of African-American male students, specifically. As is clearly shown, African-American male students will likely experience a decrease in school engagement as they progress through each grade, but how each aspect of school engagement

(cognitive, emotional, and behavioral) changes as African-American male students advance through school is unstudied. Therefore, conceptualizing school engagement within three sub-categories (as recommended by Fredericks et al., 2004) and measuring African-American male students at various grade levels would allow researchers to understand how school engagement changes, both as a whole and as three distinct components within the African-American male student community.

The proposed research will address the gaps identified above. First, the current research will utilize a validated measure of school engagement created by Wang, Willett, and Eccles (2011). This measure is the only validated measure in existence that surveys a student's behavioral, emotional, and cognitive school engagement. By using this standardized measure, the researcher will be certain that he is measuring his participants' actual school engagement levels, and will be able to comment on if these levels change as students advance in grade.

The researcher also plans to fill a current gap in the research outlined above by using a sample of African American male high school students. Within the articles outlined above, there is a lack of research aimed at understanding the school engagement of this group. By focusing solely on African American male high school students, the researcher will be able to comment on the trajectory of behavioral, emotional, and cognitive school engagement for this group; something that has not been conducted in any other research study.

## School Engagement by Student Race/Ethnicity

Whereas results from multiple studies suggest that school engagement will decline as students age, findings are unclear with regards to how school engagement compares across different races/ethnicities. The following section will provide a review of the research on school engagement related to students' racial and/or ethnic background, will highlight the themes in the literature, and will consider areas for future research along this line of inquiry.

**Mixed Results in Terms of Race/Ethnicity.** Research seems to indicate that school engagement varies in terms of student race/ethnicity. Many authors tend to find that White students experience higher behavioral engagement as compared to African-American and Latino students, and yet African-American students seem to experience higher forms of cognitive and emotional engagement compared to White students (Ream & Rumberger, 2008; Wang & Eccles, 2012; Wang, Willett, & Eccles, 2011; Voelkl, 1997). Still, some authors found no difference in school engagement levels between racial or ethnic groups (Marks, 2000; Shin, Daly, & Vera, 2007) and a few authors reported contrasting results, reporting that Asian students were more likely to experience higher levels of school engagement than other groups (Mo & Singh, 2008) and that African-American students were more behaviorally engaged and less cognitively and emotionally engaged in school than White students (Johnson, Crosnoe, & Elder, 2001).

An in-depth look into these articles reveals that the authors who find no differences in school engagement between groups have collapsed their measure of school engagement into a uni-dimensional concept rather than having it contain multiple

components. Shin, Daly, & Vera (2007) reported no differences in school engagement based on student race when using an 11-item subscale of the larger School Sentiment Index (SSI). The authors report that this subscale has elements of both an emotional and psychological component, yet report their findings as a singular school engagement score. Marks (2000) also used a single score to measure school engagement. While the items in the article by Marks (2000) seem to represent elements of both behavioral and cognitive engagement, the author does not differentiate between these two components and reports engagement as a single score. This could be a complicating factor in this research, as it is possible that when sub-scale scores for school engagement are averaged together that it masks the independent effects of behavioral, emotional, and cognitive engagement for different races of students.

Mo & Singh (2008) were the only authors to find that White students did not have higher school engagement than minority students, however, their conceptualization of school engagement was similar to the two authors mentioned above. While Mo & Singh (2008) cite Fredericks et al. (2004) as their guide in creating a school engagement questionnaire that has behavioral, cognitive, and emotional components; the authors report their results as only a single, collapsed school engagement score. This means that although the authors find that Asian students have higher school engagement as compared to other groups, this result is only representative of overall engagement. The sub-categories of behavioral, cognitive, and emotional engagement are therefore unreported.

Johnson, Crosnow, & Elder (2001) differentiate between school attachment (emotional and cognitive engagement) and school engagement (behavioral engagement) in their study, but still find contrasting results to many other authors. This is likely because Johnson, Crosnoe, and Elder (2001), like many authors, created their measures of school engagement by utilizing data sets from broad reaching surveys and then identifying questions that appear to measure various aspects of school engagement. This results in researchers using different questions from larger studies to examine school engagement instead of relying on a validated measure (Wang, Willett, & Eccles, 2011; Ream & Rumberger, 2008; Wang & Eccles, 2012; Woolley & Bowen, 2007; Johnson, Crosnoe, & Elder, 2001; Voelkl, 1997; Marks, 2000; Mo & Singh, 2008), which leads to many authors studying the same concept with completely different measures and methods. This may also be why some authors find that their school engagement questionnaires have internal reliability estimates of below .70 (Marks, 2000; Johnson, Crosnoe, & Elder, 2001; Ream & Rumberger, 2008), indicating that the measure demonstrates a poor fit for examining the construct of school engagement. Johnson, Crosnoe, & Elder (2001) report in their study that their subscale measuring school engagement (behavioral engagement) has a Chronbach's Alpha value of .61, indicating a poor fit and casting doubt on whether their results were valid.

To summarize, research on differences in school engagement between students of various races and ethnicities has produced mixed results. While some researchers report that White students have higher levels of behavioral engagement and lower levels of cognitive/emotional engagement than other students (Ream & Rumberger, 2008; Wang

& Eccles, 2012; Wang, Willett, & Eccles, 2011; Voelkl, 1997), other authors find no differences in school engagement based on student race/ethnicity (Marks, 2000; Shin, Daly, & Vera, 2007), and still some authors find completely different results altogether (Johnson, Crosnoe, & Elder, 2001; Mo & Singh, 2008).

When looking in depth at the extant research, it appears that the methods used for obtaining results vary as widely as the results themselves. In every article examined, researchers used different scales to measure school engagement. Furthermore, of the scales that were used, only one was created with the input of experts in the field of school engagement and put through a validation process to ensure that it is invariant (equally applicable) across races and genders (Wang, Willett, & Eccles, 2011). This means that many researchers are creating their own scales and claiming that they are measuring school engagement without offering certainty of this. In future research, researchers would be wise to use a validated measure of school engagement in order to assure accurate and applicable results when studying differences in student race/ethnicity.

The proposed research study will address the gaps outlined above. By using the validated measure of school engagement created by Wang, Willett, and Eccles (2011) in his current study, the researcher will be certain that he is measuring the three components of school engagement within his population. Furthermore, the fact that the school engagement measure created by Wang, Willett, and Eccles (2011) is invariant across all races means that this scale will be applicable for use within an African American sample. Therefore, by using this scale, the researcher will be certain that he is accurately

measuring the three forms of school engagement and that the measure is usable within a high school aged, African American male student sample.

## School Engagement by Student Gender

To this point, the literature reveals that most researchers agree that school engagement can be expected to decline as students get older and that there are mixed results on school engagement according to student race/ethnicity. This section will focus on the final theme in the school engagement literature: school engagement based on gender. The following section will dissect the research on school engagement as it relates to students' gender, will highlight the themes in the literature, and will consider areas for future growth in the field.

**Behavioral School Engagement Higher for Females, Mixed Results of Emotional and Cognitive Engagement.** The gender of a student also appears to have a significant impact on their school engagement. In general, most researchers agree that female students enjoy greater engagement levels than their male counterparts (Wang & Eccles, 2012; Li et al., 2011; Marks, 2000; Wang, Willett, & Eccles, 2011; Woolley & Bowen, 2007; Finn & Rock, 1997; Sirin & Rogers-Sirin, 2005; Voelkl, 1997) with some exceptions (Shin, Daly, & Vera, 2008; Mo & Singh, 2008; Daly et al., 2008). These elevated engagement levels for female students look to persist even across student grade level (Marks, 2000; Wang & Eccles, 2012). Of the researchers who have found that female students have higher levels of engagement, behavioral engagement appears to be the form that is most commonly found to be higher for females than males (Wang &

Eccles, 2012; Li et al., 2011; Marks, 2000; Wang, Willett, & Eccles, 2011; Sirin & Rogers-Sirin, 2005; Woolley & Bowen, 2007; Finn & Rock, 1997).

There are, however, a few researchers who have found no difference between female and male students in certain forms of engagement. Li et al. (2011), in their study containing 6th, 7th, and 8th grade students, found no difference in emotional engagement levels between boys and girls. The researchers also point out that while females consistently have higher levels of behavioral engagement than males, during the 8th grade year there was no statistical difference between females and males in behavioral engagement. Wang, Willett, & Eccles (2011) found in their study that girls have a significant advantage over boys in terms of behavioral and emotional engagement, but found cognitive engagement to be similar across both groups. Shin, Daly, & Vera (2008), studying 7th and 8th grade urban students, find no differences in engagement between students on emotional and cognitive school engagement. Sirin & Rogers-Sirin (2005), while finding that female students have higher engagement levels in behavioral and cognitive engagement, find no difference between African-American males and female high school students in emotional engagement with school.

It is noteworthy that in no study was it found that male students have higher school engagement than female students. Even in studies where it was found that there was not a statistically significant difference between males and females, boys always show lower levels of engagement than girls (Sirin & Rogers-Sirin, 2005; Shin, Daly, & Vera, 2008; Wang, Willett, & Eccles, 2011).

Once again, the issue of how to define and study the sub-categories of behavioral, emotional, and cognitive engagement could be confounding the results of these studies. Most researchers appear to agree on what behavioral engagement means, as most questionnaires measure behavioral engagement in terms of how often a student completes assignments, how often a student is disciplined in school, if the student participates in extracurricular activities, or some combination of these terms (Wang, Willett, & Eccles, 2011; Wang & Dishion, 2011; Sirin & Rogers-Sirin, 2005; Wang & Eccles, 2012; Finn & Rock, 1997; Woolley & Bowen, 2007; Voelkl, 1997; Wang & Eccles, 2011; Li et al., 2011; Marks, 2000). It is consistent that a majority of researchers would find similar results in terms of behavioral engagement, as all authors appear to be conceptualizing it in a similar fashion.

What is less clear is how the researchers are conceptualizing emotional and cognitive engagement. In terms of emotional engagement, some researchers use questions pertaining to how close a student feels to people at their school, if the student feels part of the school, and if the student feels safe while attending their school (Wang, Willett, & Eccles, 2011; Wang & Eccles, 2011; Sirin & Rogers-Sirin, 2005; Li et al., 2011), while others use questions such as "I find school fun and exciting" (Woolley & Bowen, 2007) and "the teachers in this school treat students fairly" (Sirin & Rogers-Sirin, 2004) to conceptualize emotional engagement. These two sets of questions may appear similar at first glance, but there is definitely a difference in their underlying messages. The question "teachers in this school treat students fairly" does not seem to imply that teachers are inherently caring or considerate, but rather just treat all students the same. It

could therefore be possible that a student may answer that teachers do treat all students in a fair way at their school, even if "fair" refers to equally poor and rude behavior to all students. On the other hand, a question such as "teachers in this school care about me" (Li et al., 2011) personalizes the student's response, making the emotional engagement question more about the student's experience. Therefore, it seems that students answering the question from Sirin & Rogers-Sirin (2004) are reflecting more on how teachers impact the overall school climate, while students answering the question from Li et al., (2011) are responding to how they personally are impacted by teachers in the school. When thinking about the definition of emotional engagement by Fredericks et al. (2004) as "positive and negative emotions to teachers, classmates, academics, and school…presumed to create ties to an institution and influence willingness to do the work (p. 60)", it would seem that Sirin & Rogers-Sirin (2004) have used a question in their measure that more accurately measures emotional engagement.

Questions used to measure cognitive engagement appear to be even more scattered from researcher to researcher. Researchers use questions to measure cognitive engagement that vary from if the student intends to enroll in college (Mo & Singh, 2008), to how many hours they spend on homework in a given week (Sciara & Seirup, 2008), to how often a student attempts to relate homework to real life situations (Wang & Eccles, 2011). Also, many researchers make no mention of attempting to measure cognitive engagement, opting to look at only emotional and/or behavioral engagement (Li et al., 2011; Sirin & Rogers-Sirin, 2005; Sirin & Rogers-Sirin, 2004; Brewster & Bowen, 2004; Johnson, Crosnoe, & Elder, 2001; Shin, Daly, & Vera, 2007; Kalil & Ziol-Guest, 2007;

Ream & Rumberger, 2008; Finn & Rock, 1997), or using one overarching measure of school engagement that does not differentiate between domains (Woolley & Bowen, 2007; Marks, 2000; Rosenfeld, Richmond, & Bowen, 2000; Purdue, Manzeske, & Estrell, 2009). This has resulted in only a select few articles commenting on cognitive engagement, even though it is identified as a valid sub-category of school engagement (Fredericks et al., 2004).

Also, while many researchers have commented on the differences in school engagement between males and females as a whole, there are relatively few studies that look into the differences between school engagement levels of African-American male and female students. Sirin & Rogers-Sirin (2005) are among the few researchers who have investigated school engagement in an African-American sample of students, saying that they chose to do so because isolating and researching a single group in depth allows researchers to identify salient contextual factors that may be impacting students' school success; mainly, the behaviors, cognitions, and emotions that impact the way a student engages with school. While many researchers choose to look at a large sample of students and compare male and female students' engagement at a macro-level, Sirin & Rogers-Sirin (2005) recognize that this has the potential to wash out important variations that may exist for some students and not others. Isolating groups of students and examining their school engagement, much in the way Sirin & Rogers-Sirin (2005) have done, will allow researchers to understand how behavioral, emotional, and cognitive school engagement change within groups.

The current research study will address gaps that are present in the current literature on school engagement listed above. First, by using a validated measure of school engagement created by Wang, Willett, and Eccles (2011), data obtained by the current sample will be an accurate representation of behavioral, emotional, and cognitive school engagement. Therefore, different levels of these three forms of engagement can be attributed to actual differences in perceived engagement levels of the participants and will not a representation of a researcher's subjective definition. Second, by focusing this research study on African American male high school students, the researcher will be adding to the scant literature base on the school engagement of African American students.

**Summary and Future Directions**

A few clear themes emerged from this literature review that need to be addressed in the school engagement literature in order to enrich the research base. First, many school engagement measures are created by the researchers themselves using questions from pre-existing questionnaires that appear to be tapping into the cognitive, emotional, or behavioral parts of school engagement (Dotterer & Lowe, 2010; Woolley & Bowen, 2007; Sciara & Seirup, 2008; Mo & Singh, 2008; Johnson, Crosnoe, & Elder, 2001; Ream & Rumberger, 2008; Li et al., 2011; Sirin & Rogers-Sirin, 2005; Sirin & Rogers-Sirin, 2004; Marks, 2000; Brewster & Bowen, 2004; Shin, Daly, & Vera, 2007; Daly et al., 2008; Klem & Connell, 2004). There are a few issues when creating surveys in this manner. First, while researchers often cite Fredericks et al. (2004) as their guide in creating school engagement measures, the variations in questions that researchers choose

mean that survey questions vary widely from article to article. Therefore, when articles reported conflicting results, discerning readers are left wondering if the results are representative of differences between samples or a byproduct of different survey questions. To correct for this, Wang, Willett, & Eccles (2011) developed a school engagement measure that was created with the help of experts in the field, validated by undergoing a multi-step confirmatory factor analysis (CFA), and subjected to a test of measurement invariance. By going through this process, Wang, Willett, & Eccles (2011) have developed an instrument that is proven to be valid and reliable across races and genders, assuring researchers that differences in responses are due to variations in school engagement levels. In order to develop a research base that is built on valid comparisons of school engagement, researchers should use instruments like the one made by Wang, Willett, & Eccles (2011) to gain a true understanding of cognitive, behavioral, and emotional school engagement through the use of a validated measure.

Second, researchers tend to use large, nationally representative samples of students which allows for broad comparisons across genders and racial/ethnic background, but does not permit an in-depth knowledge of any particular group. Sirin and Rogers-Sirin (2005) chose to break this mold and research African American adolescents in 9$^{th}$ through 11$^{th}$ grade. The results indicate that while female African-American students have higher expectations about attending college and higher behavioral engagement as compared to male African-American students, there was no difference in school identification (emotional engagement) between the groups. This is different from other research articles that are broad in scope which find no difference

between male and female students on engagement levels (Mo & Singh, 2008) or that females, in fact, have higher emotional and behavioral engagement compared to males (Wang, Willett, and Eccles, 2011). The difference between Sirin & Rogers-Sirin (2005) and the other two articles mentioned above (Mo & Singh, 2008; Wang, Willett, and Eccles, 2011) is that Sirin & Rogers-Sirin (2005) focused their research on one particular group while the other two authors use a very large sample of students from many backgrounds. This results in Mo & Singh (2008) and Wang, Willett, and Eccles (2011) commenting on school engagement across races and genders, but then do not look in depth into any one specific group. Sirin & Rogers-Sirin (2005), by focusing on only African-American high school students, were able to track the emotional and behavioral engagement of their sample and then found results that look to be unique among the school engagement literature. Future studies that aim to tap into specific groups of individuals and track their cognitive, emotional, and behavioral engagement may prove to identify similarly unique results that can further our understanding of how school engagement reacts in a cultural-specific context.

The proposed study will address both of the issues outlined above. The proposed study will use an instrument that has been validated by Wang, Willett, and Eccles (2011) that measures the behavioral, cognitive, and emotional school engagement of students. By using this instrument, the researcher will be able to compare the three forms of engagement independently of one another, something that researchers have been reluctant to do. The proposed study will also draw from a local sample of African American male high school students. By focusing solely on this population, the researcher will be able to

look in depth at the within-group differences in engagement of African American male high school students, allowing for a richer understanding of how school engagement interacts within this group.

## Theoretical Framework: Bioecological Theory

The connection of school engagement to student success is well defined in the literature, but simply understanding this connection does not empower researchers and educators to pragmatically improve the school engagement of students in order to improve their school related outcomes. Understanding what impacts school engagement is necessary if school personnel intend to create interventions to improve the academic outcomes of their students. By using Bioecological Theory as a guiding framework, the next section will propose investigating supportive relationships with parents, teachers, and peers (social support) as an area through which researchers can increase the school engagement of African American male high school students.

### Bioecological Theory

Bronfenbrenner's Bioecological Model (1979) is often cited as the guiding framework for research involving school engagement (Daly et al., 2008; Dotterer & Lowe, 2011; Marks, 2000). Originally, Bronfenbrenner conceptualized his Bioecological Model as consisting of an individual, microsystem, mesosystem, exosystem, and macrosystem; all of which are seen fitting inside one another as a set of interrelated circles. This relationship can be seen in Figure 3 below

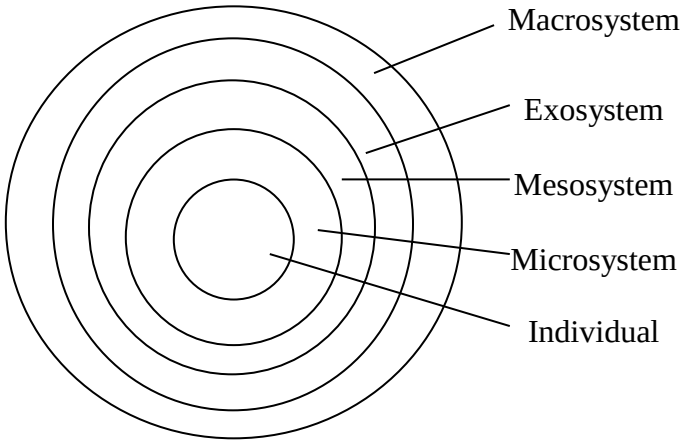


**Figure 3. Model of Bioecological Theory**

These various systems all interact, and eventually the individual at the center of the model is impacted by events that occur in outermost-systems that the individual may not have a direct connection with. In turn, these systems can also be impacted in the opposite direction, as actions taken by the individual can ripple outwards and affect peripheral systems.

In later years, Bronfenbrenner revisited his theory, giving greater attention and detail to the interaction between the individual and his/her immediate environment (the microsystem). Bronfenbrenner and Morris (1998) propose that interactions between a person and people, objects, and symbols in his or her immediate environment can have a profound impact on how an individual develops. These consistent interactions between an individual and environment are called proximal processes. Some examples include, "playing with a young child, child-child activities, group or solitary play, reading, learning new skills, athletic activities, problem solving, caring for others in distress, making plans, performing complex tasks, and acquiring new knowledge and know-how"

(p. 996). In addition, the individual can have a reciprocal effect on his/her environment as well, as the reactions of the person to environmental stressors can shape the environment itself. This manifests in a person and environment that are constantly shaping one another, both forming and reforming in a dynamic interplay as both a response to and antecedent for the other. Lerner (2005) quotes Bronfenbrenner and Morris (1998) who comment on this interaction between person and environment:

> Characteristics of the person actually appear twice in the bioecological model – first as one of the four elements influencing the "form, power, content, and direction of the proximal process," and then again as "developmental outcomes"; that is, qualities of the developing person that emerge at a later point in time as the result of the joint, interactive, mutually reinforcing effects of the four principal antecedent components of the model. In sum, in the bioecological model, the characteristics of the person function both as an indirect producer and as a product of development (p. 996).

In this summarization of proximal processes, Bronfenbrenner and Morris (1998) spell out how both the individual and the environment play an active role in shaping the interaction that takes place between the two. Lerner (2005) reflects on this portion of bioecological theory as the main driver toward improving interactions in order to create better developmental environments for individuals. According to bioecological theory, it is the interaction (proximal process) between an individual and his/her immediate environment that most directly promotes or inhibits development.

**Bioecological Theory and School Engagement**

A main tenet of bioecological theory lies in the proximal processes between individual and immediate environment, which has significant implications for students in

schools. Bronfenbrenner and Morris (1998) state that a person's disposition, access to resources, and reactions to the environment can impact the proximal processes that take place. Likewise, the people in a person's environment are also impacted by their own dispositions, access to resources, and reactions to environmental stressors; resulting in two sides that are creating an interaction influenced by their unique backgrounds. When thinking about the life of a typical American student; teachers, parents, and peers are the people who spend the majority of time around said students, and therefore have the highest likelihood of impacting the student's development according to bioecological theory, for better or worse. For example, if a student has consistently poor interactions with teachers, the student may come to dislike teachers and disengage from learning. This disengagement then could impact the teacher's actions towards the student, developing into a proximal process that does not promote the active engagement of the student in school activities or the teacher's response to the student. The opposite could also happen, as a student may have consistently positive interactions with his/her teacher, leading to a positive orientation towards school and the people in it. Likewise, a teacher interacting with a happy, engaged student may come to have a positive orientation towards the student. Thus, the responses of the teacher and student in this scenario are both a positive outcome and antecedent; the basis of a proximal process that promotes engagement in school.

The proximal processes in school build over time. Bronfenbrenner and Morris (1998) discuss how time can affect proximal processes at the micro, meso, and macro level. Micro-time refers to the immediate interaction in a proximal process and whether

the message is consistent or inconsistent. Meso-time refers to how often these interactions take place, whether it be for days, weeks, or even years. Macro-time refers to generational time periods, as internalized messages from one generation are passed to another, thus affecting how the new generations approach school and schooling. It is through the nature of the proximal processes (their form, power, content, and direction) and the time that they build off one another that affect human and student development.

Lerner (2005) argues that the proximal process component of bioecological model points towards improving relations between a person and their environment as the primary method towards improving human development. By improving the interactions that are most common between person and environment (proximal processes), researchers and policy makers stand to promote not just healthy development of the person in question, but also the development of people in that person's immediate environment. In short, focusing on interactions stands to improve the development of everyone, and should therefore be a primary focus of researchers investigating human development.

The current study draws from Bronfenbrenner's Ecological Theory by examining the proximal processes that are likely to exist in a student's everyday life. Full time high school students likely spend a majority of their time at home, with their friends, or at school; leading one to assume that interactions with parents, teachers, peers are commonplace in the life of a typical high school student. These relationships with parents, teachers, peers are commonly referred to as social support. By examining how the students in this study characterize these relationships, the researcher will be able to

deduce if proximal processes with parents, teachers, and peers are affecting participants' academic development; as shown through school engagement and grades.

### Summary

Bronfrenbrenner's bioecological theory cites proximal processes as central to impacting the lives of individuals. In school, parents, teachers, and peers are the people who have the most direct interaction with high school students and thus comprise the proximal processes that students encounter in their daily lives. By focusing on the interactions that students encounter with parents, teachers, and peers, researchers can better understand how these relationships affect how students interact with their environment. In addition, by finding ways to improve these proximal processes, researchers stand to improve how students engage with school, thereby improving school related outcomes (i.e. school engagement and grades).

## Social Support

The following section will define social support, dissect relevant research on social support, and will highlight areas for improvement in the current literature base. This section will then conclude with a summary of what is known and unknown in the social support paradigm and will explain how the current study addresses gaps in the current literature.

### Definition of Social Support

Social support is commonly referred to as, "an individual's perceptions of general support or specific supportive behaviors (available or enacted on) from people in their social network, which enhances their functioning or may buffer them from adverse

outcomes." (Demaray & Malecki, 2002, Pg. 215). This definition paints social support as inherently something that will affect an individual in a positive way. Demaray and Malecki (2002) recognize that not all students are entering school with the same experiences or have the same access to resources in their respective environments, but increases in perceived social support can help to increase a student's outcomes no matter what their starting point happens to be.

The definition above also conceptualizes social support as being *perceived* by the student. This is an especially important factor to consider, primarily because perceptions can vary from one student to the next who have both experienced the same stimulus. A teacher could tell a group of students that they are doing a fantastic job and one student may be overjoyed to hear this kind of praise and continue to work harder, while another student may interpret the teacher's praise as sarcastic and may choose to disengage from schoolwork. In this example, it would be more beneficial to know how both students are perceiving the actions of the teacher than to quantify the teacher's praise as inherently positive or negative, say, from an outsider measuring supportive behaviors only. Demaray and Malecki recognize this difference and have incorporated it into their social support definition.

A final portion of Demary and Malecki's definition is that social support for an individual is created by "people in the social network". When thinking about a typical student in school; peers, teachers, and parents make a majority (if not the entirety) of people with whom they interact. Since these three groups likely create the majority of

individuals with whom students interact on a daily basis, it makes sense that they are thought of as the main units of social support.

After reviewing the definition of social support from Demary & Malecki (2002), it is clear that Bioecological Theory (Bronfenbrenner & Morris, 1998) connects with the social support paradigm. Bronfenbrenner and Morris (1998) discuss in Bioecological theory how proximal processes, or continual interactions with people in an individual's microsystem, can impact development. Research on social support then takes this broad conceptualization proposed by Bronfenbrenner and Morris (1998) and connects it to students in school. Teachers, parents, and peers are the people that comprise the microsystem of students, and therefore should be the focus of research aimed at improving the development of students. It is thereby proposed by social support researchers that an increased perception of teacher, parent, and peer support (or increased positive proximal processes) will lead to better student outcomes (Rosenfeld, Richmond, & Bowen, 2000; Woolley & Bowen, 2007).

**Social Support and Student Outcomes**

Research on social support has identified many positive outcomes for students who experience increased teacher, parent, and peer support. The following sections examine the research on the three kinds of social support.

**Teacher Support.** Teacher support appears to be especially salient in affecting outcomes of students. Research has shown that individuals who experience increases in teacher support can expect a plethora of positive outcomes, including: increased school engagement, increased positive feelings about school, increased attendance rates, more

hours spent studying, decreased problem behavior in class, higher grades, greater motivation in school, better school adjustment, increased school satisfaction, decreased involvement with deviant peers, and greater compliance with school rules (Garcia-Reed, Reed, & Peterson, 2005; Woolley & Bowen, 2007; Brewster & Bowen, 2004; Kalil & Ziol-Guest, 2007; Klem & Connell, 2004; Rosenfeld, Richmond, & Bowen, 2000; Ryan, Stiller, & Lynch, 1994; Demaray & Malecki, 2002; Woolley, Kol, & Bowen, 2008; Wang & Dishion, 2011; Wang & Eccles, 2012). In addition, these benefits of increased teacher support appear to persist across student grades (Wang & Eccles, 2012; Brewster & Bowen, 2004; Rosenfeld, Richmond, & Bowen, 2000) and racial/ethnic backgrounds (Wang & Eccles, 2012; Woolley & Bowen, 2007; Rosenfeld, Richmond, & Bowen, 2000). In the research base, there was only one article that found no relationship between teacher support and student outcomes (Daly et al., 2008), however the researchers admit that low variance in social support levels of their participants could likely mask any significant findings that may exist. In articles that measure multiple sources of social support in relation to student outcomes, it is consistently found that teacher support acts in tandem with other sources of support to promote the positive student outcomes outlined above. For instance, Rosenfeld, Richmond, & Bowen (2000) assessed 1,815 students from 379 public middle and high schools across the United States. The researchers surveyed the students and categorized their answers into eight different groups based on their perceived support: low support from all sources (parents, teachers, and peers), high support from parents only, high support from friends only, high support from teachers only, high support from parents and friends, high support from parents and

teachers, high support from friends and teachers, and high support from all three sources. If a student scored at or below the median from the sample, they were placed in the "low support" group and if a student scored above the median they were placed in "high support" group. In this way, the authors were able to divide the sample in terms of outcomes and then see what kind of support these students perceived from teachers, family, and friends. The results indicated that hours spent studying, problem behavior in class, school satisfaction, school engagement, student self-efficacy, and student grades all were higher when high teacher support was present. Although, the researchers found that high teacher support alone was not enough to produce positive results, as high teacher support in combination with high parent and/or peer support correlated with the best student outcomes. The researchers summarize these findings by saying, "although high teacher support appears to be a *necessary* condition for positive school behavior, affect, and outcomes, it is not a *sufficient* condition. Teacher support must be perceived in combination with perceived support from parents or friends, albeit the best combination is perceived support from all providers (p. 219)".

Wang & Eccles (2012) also find evidence of teacher support working with other forms of support to produce positive student outcomes. The researchers charted the school engagement levels of 1,472 students as they progressed from $7^{th}$ through $11^{th}$ grade and sought to find the effects of social support on student school engagement. While the researchers found that school engagement decreased for all students, various forms of support appeared to slow the decline of different forms of engagement. Students with increased teacher and parent support showed higher overall school

compliance (behavioral engagement) and students with higher parent, teacher, and peer support showed increased school identification (emotional engagement) and subjective valuing of learning (cognitive engagement). These results also indicate that teacher support is a vital component to positive student outcomes, but that teacher support alone is not enough. Parent and peer support are also essential components in promoting student success.

**Peer Support.** Peer support also appears to have an impact on student success, although there is evidence that the type of peers with whom a student associates moderates these effects. When students have support from peers that are positively oriented towards school, they experience increased school engagement, increased school compliance, a decrease in school behavior problems, an increased likelihood of graduating, increased self-esteem, and decreased maladjustment (Wang & Eccles, 2012; Garcia-Reed, Reed, & Peterson, 2005; Li et al., 2011; Purdue, Manzeske, & Estell, 2009; Wang & Dishion, 2011; Woolley, Kol, & Bowen, 2008; Ream & Rumberger, 2008; Ryan, Stiller, & Lynch, 1994; Demaray & Malecki, 2002; ). On the other hand, when students associate with deviant peers, they show increased problem behavior, decreased school engagement, an increased risk of dropping out, and decreased levels of school compliance (Wang & Dishion, 2011; Li et al., 2011; Ream & Rumberger, 2008; Simmon-Morten & Chen, 2009; Wang & Eccles, 2012). In addition, only one study was identified that found no relationship between peer support and student outcomes (Daly et al., 2008), although these researchers reported that their sample had relatively high levels of social support with little variance, perhaps masking the effects of peer support on the

participants. A study by Wang & Eccles (2012) sums up the common findings of peer support. The researchers found that an increase in peer support predicted a decrease in school compliance (behavioral engagement), which was opposite of what the researchers expected to find. The researchers then ran an additional analysis where they analyzed peer support in terms of how the participants' friends felt about school. It was found that when friends did not value school, social support had a negative effect on school compliance ($p < .001$); and conversely, positive social support had a positive impact on school compliance, although this impact was not statistically significant ($p = .06$).

**Parent Support.** The research on parent support is plentiful, and points towards parent support as an inherently positive influence on a number of student outcomes. Increased parent support is associated with increased school engagement, increased resilience in the face of environmental risk factors, increased grades, increased academic self-efficacy, fewer depressive symptoms, increased life satisfaction, a better attitude towards teachers, and decreased underage drinking (Wang & Eccles, 2012; Garcia-Reed, Reed, & Peterson, 2005; Woolley & Bowen, 2007; Woolley, Kol, & Bowen, 2008; Plybon et al., 2003; Alliman-Brissett & Turner, 2010, Rockhill et al., 2008; Stewart & Suldo, 2011; Demary & Malecki, 2002; Turisi et al., 2001). A literature review revealed that researchers did not find a correlation between parent support and student outcomes (Hines & Holcomb-McCoy, 2013). On further investigation, this research paper looks to have low power, as the researchers attempted to find differences between four types of parenting styles and honor's class participation with a sample of 153 African American male students via a one-way analysis of variance (ANOVA). In order to identify a

medium effect size for a one-way ANOVA with four groups and power of .80, p = .05, a sample of 180 is needed; meaning that the researchers' insignificant findings could be a result of an insufficient sample. Although, the researchers utilized a regression analysis when attempting to connect parenting type to student GPA, and again found no significant findings. Granted, the researchers were investigating parenting style rather than parental support, two concepts that are somewhat related but not identical; meaning that parenting style may not be connected to student GPA, yet parent support could be had it been included.

Demaray and Malecki (2002) represent the typical findings associated with parental support, as they found parent support to benefit students across a host of student outcomes. The researchers surveyed Latino middle school students in a low performing school to see if social support moderates school maladjustment (attitude toward teachers and school), personal maladjustment (interpersonal relationships), and emotional maladjustment (depression and sense of inadequacy). Results indicate that parent support significantly decreased maladjustment across all three areas. In addition, students of various risk levels all appear to experience decreased levels of maladjustment with increased parental support, a finding that shows that parent support has the potential to help students of various backgrounds.

**Social Support: Connection to School Engagement**

When examining the positive outcomes associated with increased social support, there are some potential parallels with school engagement. Even though some social support researchers often do not explicitly state that the outcomes of their research are

representative of school engagement, many of the outcomes listed above are similar to definitions of each school engagement type. Following the definition of Fredericks et al. (2004), behavioral engagement refers to "participation…involvement in academic and social or extracurricular activities" (p. 60). Using this definition, student outcomes such as increased attendance rates, more hours spent studying, decreased problem behavior in class, and greater compliance with school rules are similar to behavioral engagement; as they are all indicators of what a student is physically doing in school activities. Emotional engagement refers to "positive and negative reactions to teachers, classmates, academics, and school" (Fredericks et al., 2004, p. 60). Following this definition, outcomes such as positive feelings about school, increased school satisfaction, better school adjustment, a better attitude towards teachers, and increased academic self-efficacy all appear to be parallel to the definition of emotional engagement. Cognitive engagement refers to "investment…it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills" (Fredericks et al., 2004, p. 60). With this definition in mind, it would appear that an outcome such as more hours spent studying could possibly reflect a student's effort towards mastering difficult skills and may fit the definition of cognitive engagement.

In addition, some social support researchers have used school engagement itself as an outcome variable (Woolley & Bowen, 2007; Garcia-Reed, Reed, & Peterson, 2005; Wang & Eccles, 2012; Ream & Rumberger, 2008; Li et al., 2011; Perdue, Manzeske, & Estrell, 2009; Brewster & Bowen, 2004; Kalil & Ziol-Guest, 2007; Klem & Connell, 2004). While researchers tend to use different instruments to measure school engagement,

they consistently find that increased social support leads to increased school engagement for students. Taken together, this information seems to point towards social support as a powerful influence on school engagement.

**Social Support and African American Adolescent Male Students**

Even though there exist numerous studies that connect increased social support to positive school outcomes, research connecting social support to high school African American male student outcomes is scant and in need of refinement. St. Lawrence et al. (1994) conducted a study that examined the effect of social support on AIDS knowledge and sexual practices of African American adolescents. The researchers found that for African American adolescent males, low social support was connected to more frequent unprotected sex and to a larger number of sexual partners. Although, the scale used to measure social support in this study (Social Provision Scale (Russell & Cutrona, 1984)), does not differentiate between social support sources and only yields one overall social support score. This means that while social support does seem to be connected to African American adolescent male sexual behavior, the effect of different sources of social support (parent, teacher, and peer) remains unknown.

Paxton et al. (2004) surveyed 77 African American high school aged students from a single mid-western high school to see if social support moderated the relationship between exposure to community violence and student post-traumatic stress disorder (PTSD) symptoms and depressive symptoms. Researchers found that social support did not moderate these symptoms, although social support did approach significance when examined as a moderator between community violence and depressive symptoms (p

= .06). Like the article by St. Lawrence et al. (1994), Paxton et al. (2004) report social support as one sum score, meaning that the effects of differing sources of support are unknown.

Corprew III & Cunningham (2012), in their study of bravado attitudes of African American males and the moderating effect of social support, found evidence for the positive impact of social support. The researchers found that for male students who have high negative school experiences, having increased social support can help them to cope with their experiences and decrease the need to adopt a maladaptive bravado attitude. Social support in this article was conceptualized by support that students perceive from teachers and administrators, based only on four Likert-scale questions. Therefore, like other articles on social support and African American male adolescents, Corprew III & Cunningham (2012) did not utilize a well-rounded presentation of social support, as their research only focused on the effects of teacher support.

Lindsey, Joe, & Nebitt (2010) represent the only researchers who have reported the effect of multiple sources of social support on the outcomes of African American adolescent males. The researchers examined the effect of peer, family, and professional social support on the depressive symptoms of 59 African American males, finding that social support played a central role in decreasing depressive symptoms. Follow up qualitative analyses with the participants highlighted the central role that family support appears to play in this population, as a majority of the participants interviewed (12 out of 18) reported that a family member was first to recognize their depressive symptoms and encourage them to get help. This supportive role of family members appears to be

essential in linking African American males to needed help, as many participants said that they were mistrustful of professionals and theirs peers. In using this mixed methods design, Lindsey, Joe, & Nebitt (2010) showed that social support overall could have positive outcomes for African American adolescent males, and that the source of support was essential to document when attempting to understand how positive outcomes emerged in the African American adolescent male community.

**Summary**

Taken in total, the literature linking social support to African American adolescent male outcomes is sparse, often does not take into account the effects of multiple sources of social support, and focuses on outcomes that are not directly related to success in school. Given the abundance of social support research in existence, it is surprising that such a small amount of research has investigated the impact of social support on African American adolescent males. In addition, it is also surprising that researchers have not attempted to connect social support to school outcomes for African American adolescent males. Considering that social support has been connected to many outcomes related to school success for students as a whole (Kelm & Connell, 2004; Brewster & Bowen, 2004; Perdue, Manzeske, & Estrell, 2009; LI et al., 2011; Ream & Rumberger, 2008; Rosenfeld, Richmond, & Bowen, 2000; Woolley & Bowen, 2007) and that African American male students have historically experienced difficulties related to school outcomes (Lee, 1992; Feldman, 1993; Harry et al., 2000), it follows that examining social support as a predictor of school outcomes for African American adolescent males is a logical next step. Furthermore, as Lindsey, Joe, & Nebbitt (2010)

demonstrated in their mixed methods approach, understanding the impact of each social support source also looks to be especially important. If it was found that family social support was a primary promoter of African American adolescent males seeking help for depressive symptoms (Lindsey, Joe, & Nebbitt, 2010), then perhaps various social support sources could be independently important in other outcomes (e.g. student grades). In order to more fully understand the impact of social support on African American adolescent males, each form of support (family, parent, and peer) should be examined independently to determine their unique impact on student outcomes.

## Chapter Summary

This chapter has provided a review of the research that is related to the current study. Within this chapter, literature on African American male students, school engagement, ecological theory, and social support have been presented, reviewed, and critiqued. The review has uncovered the following: 1) many African American male students struggle to succeed in school due to societal and institutional barriers; 2) efforts to address African American male student achievement show some promise, but still have failed overall to address these concerns; 3) school engagement appears to be connected to student grades, dropout, and school behavior; three issues that are prevalent barriers to the academic success of adolescent African American male students, and yet school engagement is understudied within the adolescent African American male population; 4) bioecological theory posits that consistent interactions with people in a person's proximal microsystem are most likely to impact a person's development; indicating that teachers, family members, and peers are likely important relationships in

the lives of students, since students commonly interact with these three sources on a regular basis; 5) social support research examines the impact that relationships with parents, teachers, and peers have on student outcomes, often finding that positive relationships with these sources lead to positive student outcomes; and 6) research connecting social support to outcomes for African American adolescent male students is under-developed often looking at social support as a whole and connecting it to various, but not connecting the three main sources of social support (parent, teacher, and peer) to academic outcomes for African American adolescent male students. The current study was designed with these findings in mind and constructed to address the gaps in the literature base. This study will look at how parent, teacher, and peer support impact school engagement and whether school engagement influences the math GPA of African American high school male students.

# CHAPTER III

# METHODOLOGY

A review of the literature on African American male students in school, school engagement, and social support was presented in Chapter Two. The purpose of the current chapter is to provide an overview of the methods used in the current study; including hypotheses, participants, procedures, instrumentation, and data analyses. This chapter concludes with a discussion of the limitations of this study and changes made to the study based on information obtained from pilot data.

## Research Questions and Hypotheses

The purpose of this chapter is to give a detailed description of the research methods that will be implemented in this study. The research questions, hypotheses, participants surveyed, procedures, instrumentation used, and data analyses conducted are all discussed below. This chapter concludes with a discussion of the limitations of the research and adaptations that were made to the full study based on information gained from the pilot study.

**Research Question 1:** Are there significant differences between lower level ($9^{th}$ and $10^{th}$ grade) and upper level ($11^{th}$ and $12^{th}$ grade) African American male high school students in cognitive school engagement, behavioral school engagement, and emotional school engagement

*Hypothesis 1a:* There will not be a significant mean difference in cognitive school engagement between lower level and upper level high school student

*Hypothesis 1b:* There will not be a significant mean difference in behavioral school engagement between lower level and upper level high school students.

*Hypothesis 1c:* There will not be a significant mean difference in emotional school engagement between lower level and upper level high school students.

**Research Question 2:** Are behavioral engagement, emotional engagement, and cognitive engagement significantly correlated with African American male high school student GPA?

*Hypothesis 2a:* Behavioral engagement will not be significantly correlated with student GPA.

*Hypothesis 2b:* Emotional engagement will not be significantly correlated with student GPA.

*Hypothesis 2c:* Cognitive engagement will not be significantly correlated with student math grades.

**Research Question 3:** Are parent support, peer support, and teacher support significantly correlated with African American male high school student GPA?

*Hypothesis 3a:* Parent support will not be significantly correlated with student math grades.

*Hypothesis 3b:* Peer support will not be significantly correlated with student math grades.

*Hypothesis 3c:* Teacher support will not be significantly correlated with student math grades.

**Research Question 4:** To what extent are the significant paths from social support (parent, teacher, peer, close friend) to math grades mediated by school engagement (behavioral, emotional, and cognitive)?

*Hypothesis 4a:* Behavioral engagement will not mediate any significant paths between social support and math grades.

*Hypothesis 4b:* Emotional engagement will not mediate any significant paths between social support and math grades.

*Hypothesis 4c:* Cognitive engagement will not mediate any significant paths between social support and math grades.

## Participants

Participants were recruited from schools and school systems near Greensboro, North Carolina. Participants were comprised of high school students who self-identified as "Black" or "African American" and "male" in the school's registration records. The one exclusion criteria for students was that the student must speak English fluently in order to participate in the study. An a priori power analysis was conducted using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) to determine the sample size needed to reach a power level of .80 and to have a medium effect size for each analysis. In order to conduct an ANOVA with 2 groups ($9^{th}/10^{th}$ and $11^{th}/12^{th}$ graders) and maintain a medium effect size of .25, a sample size of 128 is needed. Another a priori analysis was conducted with G*power to determine the number of participants that will be needed in

order to conduct a multiple regression with 7 predictor variables, while also maintaining a moderate effect size (.15). The number of participants needed for this analysis is 103. Taking these numbers into consideration, and assuming that some participants will have missing data, the target sample size for this study was 150 students.

## Procedures

The researcher contacted schools, both public and private, in several North Carolina counties. Once enough schools indicate that they are interested in having their students participate in the study, the researcher submitted a proposal to the Institutional Review Board (IRB) at the University of North Carolina at Greensboro (UNCG) to gain approval to conduct the research. The researcher also gained IRB consent from every school board in which the study was conducted. Furthermore, the researcher gained consent from the principal at every school in which the study was conducted. Once IRB consent was gained, a consent form was sent home to parents telling them about the study. The consent form explained that this study is examining the effects of supportive relationships on how students interact with school and if these relationships influence student grades. If parents signed and returned the consent form to the school, their child was allowed to participate. Students were also given a chance to sign an assent form that explains what the study is hoping to accomplish. The researcher read this assent form aloud to students prior to administering the survey. Once again, only students who signed the assent form were allowed to participate. Both students and parents were made aware that participation in the study is entirely voluntary and that they had no repercussions for choosing to not participate. In order to calculate a response rate, the

total number of African American male students who returned a consent letter was divided by the total number that were estimated to have received a consent letter. The number of students who participated was divided by the total number of possible subjects in order to get a response rate.

When it was determined which students qualified to be participants in the study, the researcher went to the school to give paper and pencil surveys to the students in person. Students were informed how long the survey took to complete and that they could choose to stop taking it at any time. Students were also encouraged to be as honest as possible when answering the questions, with the assurance that their data would be kept confidential. After instructions were read aloud, the students filled out the surveys and demographic questionnaire. At the end of the entire survey, students were given a $5 gift card for their participation. No identifying information was attached to the surveys themselves.

**Instrumentation**

The participants completed two surveys and one demographic questionnaire as part of the research process. These instruments included the Child and Adolescent Social Support Scale (CASSS; Malecki & Demaray, 2002), The Wang, Willett, and Eccles School Engagement Scale (WWESES; Wang, Willett, & Eccles, 2011), and a demographic questionnaire that was created by the researcher. The psychometric properties of these instruments are discussed below.

**Child and Adolescent Social Support Scale (CASSS).** The Child and Adolescent Social Support Scale (CASSS) was used to assess the level of perceived

support that students experience from parents, teachers, and peers; this scale is located in appendix A. The CASSS contains 48 Likert scale questions, ranging from 1(*Never*) to 6 (*Always*), asking participants to self-reflect on how often they experience supportive actions from parents, teachers, peers, and close friends. For each subsection (parent, teacher, peer, and close friend), there is also an importance rating scale ranging from 1 (*Not important*) to 3 (*Very important*). For example, a sample question in the parent support subscale reads, "My parent(s) help me make decisions". A participant would then rate this in terms of how often this happens (1 to 6) and also in terms of how important this action is to the student (1-3). The CASSS was normed on a sample of high school and middle school students, with reliability estimates for both levels. High school students report factor loadings of .54-.83 for the parent subscale, .59-.85 for the teacher subscale, .37-.69 for the peer subscale, and .69-.84 for the close friend subscale. The CASSS correlated highly with Social Skills Rating Scale (SSRS, .62, $p < .001$) and the Student Self-Concept Scale (SSCS, .49, $p < .001$), demonstrating high convergent validity.

The CASSS originally consisted of five subscales, including a school support scale, but a follow up analysis of the CASSS (Malecki and Demaray, 2002) demonstrated that a four-factor design created the best fit to the overall social support concept. In this follow up analysis, 757 students from five states completed the CASSS. Reliability measurements were found to be high, ranging from .89 to .94 on all of the subscales and .95 overall. Based on the research of Malecki and Demaray (2002), only the parent, teacher, peer, and close friend subscales will be included in the current research. In

addition, Malecki and Demaray (2002) demonstrated high correlation of the four factor design of the CASSS with the Social Support Scale for Children (.70) (SSSC; Harter, 1985), demonstrating high convergent validity for the four factor structure of the CASSS and providing strong support that the CASSS is measuring the same variable as the SSSC, mainly, social support. Test-retest reliability of the four-factor scale of the CASSS after 8 weeks was found to be .70.

There are a few issues that need to be considered when using the CASSS with an African American, high school male population. First, the type of student population used to validate the CASSS could be a confounding factor. There are a large number of non-white students in the sample used by Malecki and Demaray (2002) that completed the CASSS for validity and reliability measures (40%), but a majority of the non-white students were Native American (20%). Additionally, only 2% of the students in the Level 2 version of the CASSS were African American. This is a somewhat unique sample of students that may have swayed the results of the original confirmatory factor analysis for the CASSS.

The second issue with the CASSS lies in the number of students sampled from a high school setting. Of those students used to create the four-factor level 2 version of the CASSS (757), only 155 came from high school; the remaining 602 participants were in middle school.

**Wang, Willett, and Eccles School Engagement Scale (WWESES).** A recent scale created by Wang, Willett, and Eccles (2011) was used as a measure of school engagement and can be found in appendix B. This scale was created to encompass the

three areas of school engagement: behavioral, emotional, and cognitive that were described in chapter 2. Students will be asked to respond to 23 items that ask participants to reflect on their behavior (i.e. How often do you get schoolwork done on time?) and thought processes (i.e. How often do you try and learn from your mistakes?) in school. Each question asks students how often they do or think certain things on a Likert scale from 1 (almost never) to 5 (almost always); higher scores indicating higher behavioral and cognitive engagement. On the behavioral engagement scale, some items are reverse coded, such that an answer of "almost always" indicates lower engagement (i.e. how often have you skipped class?). For the emotional engagement scale, students are asked how strongly they agree with a set of statements from 1(strongly disagree) to 5 (strongly agree). Higher scores indicate a higher amount of self-perceived emotional engagement. The 23-item scale was created with the help of "experts in the field (Drs. Blumenfeld, Fredericks, and Eccles)" (pg. 460) in order to represent the common three theoretical subfields that create school engagement and to provide a source of face validity for the survey questions. The authors conducted confirmatory factor analysis on a sample of 1,000 $8^{th}$ grade students (56% African American) from 14 different states and found that the three-area model had a significant fit based on factor loadings (.71-.89), indicating evidence for convergent validity. Reliability coefficients were all .70 or higher for each type of school engagement, indicating that students are able to consistently differentiate between all three forms of school engagement.

While the WWESES is the only validated measure that includes the three forms of school engagement, the fact that it was validated on a middle school sample could be a

complicating factor for future use with high school students. In order to make sure that this scale is also able to be interpreted in a high school sample, a focus group will be conducted to see if students were able to understand each of the questions as written.

**Demographic Questionnaire.** A questionnaire constructed by the researcher was used to collect demographic data about the participants. This questionnaire included questions pertaining to: age, gender, ethnicity/race, current grade ($9^{th}$, $10^{th}$, $11^{th}$, $12^{th}$), parent education level, home financial situation, and what school the student is currently enrolled in. This questionnaire is located in appendix C.

At the end of the survey, students were asked to report the letter grades (e.g. A-, B+, B) of their history, science, English, and math classes on their most recent report card. These grades were averaged together to create a Grade Point Average (GPA) of all available grades.

## Data Analysis

After the data collection period was completed, data was recorded and analyzed using SPSS software (SPSS, 2011). Descriptive statistics, reliability estimates, and missing data examinations were run for all variables prior to data being examined in relation to specific research questions. All hypotheses and analyses for the current research are located in Table 1.

Research question 1 (Are there significant differences between lower level ($9^{th}$ and $10^{th}$ grade) and upper level ($11^{th}$ and $12^{th}$ grade) high school students in cognitive school engagement, behavioral school engagement, and emotional school engagement?) was analyzed using a one-way multivariate analysis of variance (MANOVA). This

analysis allowed the researcher to examine whether students in different grades ($9^{th}$ and $10^{th}$ vs. $11^{th}$ and $12^{th}$) experience differences in the three outcome variables (cognitive school engagement, behavioral school engagement, and emotional school engagement).

Research question 2 (are parent support, peer support, teacher support, and close friend support significantly correlated with student math grades?) was analyzed using a multiple regression analysis. The predictor variables for this analysis were parent support, peer support, teacher support, and close friend support. The predictor variables were regressed on the outcome variable (student GPA) to examine the variance in student GPA that can be accounted for by all the predictor variables combined. In addition, bivariate and partial correlations were run to determine the strength of each individual predictor on student grades.

Research question 3 (Are behavioral engagement, emotional engagement, and cognitive engagement significantly correlated with student GPA?) was analyzed using a multiple regression analysis. The predictor variables for this analysis were cognitive school engagement, behavioral school engagement, and emotional school engagement. The predictor variables were regressed on the outcome variable (student GPA) to examine the variance in student GPA that can be accounted for by all the predictor variables combined. In addition, bivariate and partial correlations were run to determine the strength of each individual predictor on student GPA.

Research question 4 (to what extent are the significant paths from social support (parent, teacher, peer, close friend) to GPA mediated by school engagement (behavioral, emotional, and cognitive)?) was analyzed using a mediating path analysis. Baron and

Kenny (1986) outline four steps for conducting a mediating path analysis, which will be followed in this study. First, a multiple regression was run to examine which independent variables (parent support, teacher support, peer support, and close friend support) significantly correlated with the outcome variable (student GPA). Second, a multiple regression analysis was run to examine which mediating variables (cognitive school engagement, behavioral school engagement, and emotional school engagement) significantly correlate with the outcome variable (student GPA). Third, a multiple regression analysis was run connecting significant independent variables (parent support, teacher support, peer support, and close friend support) to significant mediating variables (cognitive school engagement, behavioral school engagement, and emotional school engagement). Finally, if it was found that all three paths are significant between an independent variable, mediating variable, and outcome variable; the significant independent variable was entered into a regression analysis as the sole predictor of the outcome variable. A second regression analysis was then run with the independent and mediating variable predicting the outcome variable. These two models were compared and follow-up analyses conducted to determine if the mediating pathway is significant (Sobel, 1982). This mediating relationship is diagramed in figure 4 below.

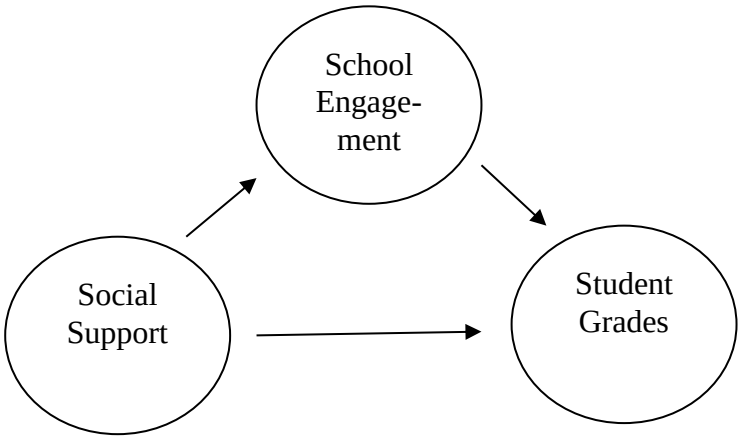


**Figure 4. Mediating Path Analysis**

**Table 1**

**Hypotheses and Data Analyses**

| ***Hypotheses*** | | ***IVs*** | ***DVs*** | ***Analyses*** |
|---|---|---|---|---|
| **Hypothesis 1:** | There will be a significant difference between lower level ($9^{th}$ and $10^{th}$ grades) and upper grade ($11^{th}$ and $12^{th}$ grades) high school students in cognitive school engagement, behavioral school engagement, and emotional school engagement | Grade level | Cognitive engagement<br><br>Behavioral engagement<br><br>Emotional engagement | One-way MANOVA |
| **Hypothesis 2:** | Cognitive engagement, behavioral engagement, and emotional engagement will each account for a significant proportion of the variance in student GPA. | Cognitive engagement<br><br>Behavioral engagement<br><br>Emotional engagement | GPA | Multiple Regression |
| **Hypothesis 3:** | Parent support, teacher support, peer support, and close friend support will each account for a significant proportion of the variance in math grades. | Parent support<br><br>Teacher support<br><br>Peer support | GPA | Multiple Regression |
| **Hypothesis 4:** | To what extent are the significant paths from social support (parent, teacher, peer, close friend) to math grades mediated by school engagement (behavioral, cognitive, and emotional). | <u>Predictor:</u><br>Social Support<br><u>Mediator:</u><br>School Engagement | GPA | Mediating Path Analysis |

## Pilot Study

A pilot study was conducted to field test the instrumentation and survey procedures to be used in the full study. Due to the small sample size, no research questions were directly examined using the pilot study data. After completing all of the instruments, the pilot sample participated in a focus group. Answers from this focus group were used to revise the current survey and procedures prior to conducting the full study.

### Participants

The pilot study sample included four African American male students enrolled in an independent high school near Greenboro, NC. The average age of the participants was 15.5. Originally, 14 students were given consent forms and asked to participate in the pilot study, but only 4 students returned consent forms, yielding a response rate of 29%. Additional demographic information is summarized in Table 1 of Appendix D.

### Instruments

Participants completed a paper and pencil survey that included the demographic questionnaire, the Child and Adolescent Social Support Scale (CASSS; Malecki & Demaray, 2002), The Wang, Willett, and Eccles School Engagement Scale (WWESES; Wang, Willett, & Eccles, 2011), and an additional question about math achievement created by the researcher. At the conclusion of the survey, participants participated in a focus group for 20 minutes and were asked to provide feedback on the clarity of the survey questions as well as to provide their own personal reactions to their experience

taking the survey. After the survey and focus group were completed, each participant was given a $5 gift card.

Social support was measured using the CASSS. The CASSS contains 48 Likert scale questions, ranging from 1 (*Never*) to 6 (*Always*), asking participants to self-reflect on how often they experience supportive actions from parents, teachers, peers, and close friends. For each subsection (parent, teacher, peer, and close friend), there is also an importance rating scale ranging from 1 (*Not important*) to 3 (*Very important*). For example, a sample question in the parent support subscale reads, "My parent(s) help me make decisions". A participant would then rate this in terms of how often this happens (1 to 6) and also in terms of how important this action is to the student (1-3). The CASSS was normed on a sample of high school and middle school students, with reliability estimates for both levels. High school students report factor loadings of .54-.83 for the parent subscale, .59-.85 for the teacher subscale, .37-.69 for the peer subscale, and .69-.84 for the close friend subscale. The CASSS correlated highly with Social Skills Rating Scale (SSRS, .62, $p < .001$) and the Student Self-Concept Scale (SSCS, .49, $p < .001$), demonstrating high convergent validity.

The CASSS originally consisted of five subscales, including a school support scale, but a follow up analysis of the CASSS (Malecki & Demaray, 2002) demonstrated that a four-factor design created the best fit to the overall social support concept. In this follow up analysis, 757 students from five states completed the CASSS. Reliability measurements were found to be high, ranging from .89 to .94 on all of the subscales and .95 overall. Based on the research of Malecki and Demaray (2002), only the parent,

teacher, peer, and close friend subscales will be included in the current research. In addition, Malecki and Demaray (2002) demonstrated high correlation of the four factor design of the CASSS with the Social Support Scale for Children (.70) (SSSC; Harter, 1985), demonstrating high convergent validity for the four factor structure of the CASSS and providing strong support that the CASSS is measuring the same variable as the SSSC, mainly, social support. Test-retest reliability of the four-factor scale of the CASSS after 8 weeks was found to be .70.

School engagement was measured using the WWESES. This scale was created to encompass the three areas of school engagement: behavioral, emotional, and cognitive that were described in chapter 2. Students will be asked to respond to 23 items that ask participants to reflect on their behavior (i.e. How often do you get schoolwork done on time?) and thought processes (i.e. How often do you try and learn from your mistakes?) in school. Each question asks students how often they do or think certain things on a Likert scale from 1 (almost never) to 5 (almost always); higher scores indicating higher behavioral and cognitive engagement. On the behavioral engagement scale, some items are reverse coded, such that an answer of "almost always" indicates lower engagement (i.e. how often have you skipped class?). For the emotional engagement scale, students are asked how strongly they agree with a set of statements from 1(strongly disagree) to 5 (strongly agree). Higher scores indicate a higher amount of self-perceived emotional engagement. The 23-item scale was created with the help of "experts in the field (Drs. Blumenfeld, Fredericks, and Eccles)" (pg. 460) in order to represent the common three theoretical subfields that create school engagement and to provide a source of face

validity for the survey questions. The authors conducted confirmatory factor analysis on a sample of 1,000 8th grade students (56% African American) from 14 different states and found that the three-area model had a significant fit based on factor loadings (.71-.89), indicating evidence for convergent validity. Reliability coefficients were all .70 or higher for each type of school engagement, indicating that students are able to consistently differentiate between all three forms of school engagement.

A demographic questionnaire was created by the researcher to collect information on the participants' age, gender, race, current grade level, and school currently enrolled in. Students were asked to not write their name or any identifying information on the demographic portion of the survey in order to preserve participant confidentiality.

A final question on the survey asks students to report their grade in math class on their last quarter report card. This question was created by the researcher. Responses to this question range from A+ to F. There was also a response of "I was not enrolled in a math class last semester" that students could choose if it applied.

At the end of the survey, students participated in a focus group. The primary aim of the focus group was to examine how students felt while taking the survey and if students would change anything about the survey. The researcher asked a series of open and closed ended questions to obtain information from the participants about their experience taking the survey. Examples of questions that the researcher asked include: "What was it like to take the survey", "Were you confused or frustrated by anything in the survey?", and "If you could change anything about the survey, what would it be?"

Participants appeared to be candid with their answers, and were quick to provide responses to questions.

**Revisions Based on Pilot Study and Preliminary Proposal**

Overall, the administration of the survey and focus group during pilot testing was successful. All students finished their surveys in less than 15 minutes and the focus group portion lasted 20 minutes, meaning that the pilot study in its entirety lasted for 35 minutes from start to finish. Students also reported that instructions were quite clear and there was no confusion as to how to answer questions on the survey.

Based on responses from the focus group, a few changes will be made to the survey prior to administration in the full study. First, students noted that on the WWESES some responses range from 1 (*almost never*) to 5 (*always*). All students in the focus group reported that this range of responses in inadequate, as they would have liked to have answered "never" to some questions but were not able to do so. Based on this feedback, the researcher will amend the behavioral engagement and cognitive engagement subscales of the WWESES to include an additional response of "never" to every question. Second, students in the focus group reported that the question "What was the grade in your Math class on your last quarter report card?" at the end of the survey could be misleading for students in other schools. Two students reported that they were friends with students in other schools that did not follow a 9-weeks grading period, and therefore these students would not have quarter report cards. Based on this insight from the focus group, this question will be amended to read "What was the grade in your Math class on you last report card?"

Based on feedback received during the preliminary proposal, some changes were made to the full study. First, more information will be added to the demographic questionnaire. Students will be asked who they live with, what adult they spend the most time with, what is their father's highest level of education, what is their mother's highest level of education, how often their family has inadequate money to cope with family expenses in the past six months, how often their family has delayed paying bills due to inadequate money in the past six months, and what the economic condition of their household was over the past six months. Asking these additional questions will allow for a greater description of the sample being studied. Second, students will be asked to self-report their math, science, history, and English grades. All available grades will be averaged to create a composite grade point average (GPA) for each student. This was done to avoid the possibility of a student reporting that they are not currently enrolled in a math class, and therefore, would be ineligible for analysis in Research Questions 2, 3 and 4. Therefore, the dependent variable in research questions 2, 3, and 4 will be a student's GPA, which represents the average of a student's math, science, history, and English grades.

## Limitations

There are some limitations that should be considered in the interpretation of the results of this study. First, this study is relying solely on the perception of social support and school engagement from the participants. While this will give researchers an idea of how social support and school engagement vary from the participants' point of view, it is not a true measure of actual levels of support or engagement. Second, the data will be

analyzed using correlational analyses, which will not permit the researcher to infer causality of the data. Third, the participants in this sample were recruited from schools and school systems near Greensboro, NC. This method of convenience sampling may limit the applicability of results to only the greater Greensboro, NC area. Fourth, because the participants self-reported their grades it is possible that their actual grades may differ from the grades that they have reported. Finally, participants must fill out an extensive amount of paperwork to be a part of this study. It is possible that participants who choose to not participate in this study differ from those who do choose to participate, which may also limit the validity of the findings.

# CHAPTER IV

# RESULTS

The current study was designed to examine how differing forms of social support and school engagement affect the grades of African American male high school students. In this chapter, the results of the analyses are presented. First, general demographics of the sample are described. Next, preliminary analyses are discussed, including reliability analyses of the instruments and descriptive statistics of study variables. Finally, the results of analyses related to each research hypothesis are presented.

## Description of the Sample

Participants were recruited from seven high-schools near Greensboro, North Carolina. The researcher contacted potential schools and school districts to obtain a letter of consent from each. Once a letter of consent was obtained from a school and/or school district, the researcher then contacted the principal of each school to ask for permission to conduct the study and to schedule times and dates of when the survey would be administered to students. Students were then sampled from each school and given a consent form to take home to be signed by a parent or guardian. Students who were 18 years of age or older were permitted to sign a consent form for themselves. Students who returned a consent form to the school were permitted to take the part in the research study.

For the purposes of the study, only African American male students currently enrolled in high school were sampled. Based on the number of consent forms created and distributed, approximately 300 students were provided consent forms and 117 students participated in the research study, yielding a response rate of 39%. Of the 117 students who completed the survey, one student did not answer half of the items of the teacher support subscale of the CASSS. All other students completed at least 75% of questions in each subscale, which has been shown to yield an accurate average in previous research (Eissen et al., 1999). Additionally, another student did not report any grades. Because of the missing information for both of these participants, they were excluded from this study, yielding a total of 115 surveys.

Demographic data were collected including age, gender, ethnicity, grade, who was raising the participant, father's education level, mother's education level, and three questions about the participant's family economic condition (see Appendix B for full demographic questionnaire). Demographics of the total sample are shown in table 2.

The average age of participants was 16.37 (SD = 1.31) and ages ranged from 14 to 19. Twenty-one students were enrolled in 9$^{th}$ grade (18.3%), twenty-six were enrolled in 10$^{th}$ grade (22.6%), thirty-six in 11$^{th}$ grade (31.3%), and thirty-two in 12$^{th}$ grade (27.8%). All participants were male (115; 100%). A large majority of the participants self-identified as African American (n = 99; 86.1%), however some identified as being of a mixed racial background (n = 15; 13%) and "other" racial background (n = 1; .9%). One student reported his ethnicity as "other" and informed the researcher that he identified as Caribbean American. This student reported that he would have self-

identified as “Black”, but this was not an option on the demographic survey. A majority of participants reported being raised by their mother and father (n = 47; 40.9%). In terms of education, participants most commonly reported that their parents’ highest level of education completed was high school (mother: n = 37; 32.2%, father: n = 44, 38.3%). When responding to questions about their family economic situation, participants reported most often that in the past six months their family has sometimes had inadequate money to pay for expenses (n = 33; 28.7%), that their family has never delayed the payment of bills due to financial difficulty (n = 43; 37.4%), and that their family has experienced some financial difficulty (n = 52; 45.2%). Students also reported their grades ranging from A+ to F in their math, science, history, and English classes. All reported grades were averaged to create a student grade point average (GPA), where an average of 1 represented the highest attainable GPA (A+ average) and an average of 13 represented the lowest possible GPA attainable (F average). The student GPA resulted in a mean of 5.35 for the entire group (n = 115, SD = 2.30), revealing that students had an average GPA between a B and B-.

To prevent confusion in the analyses sections, all of the GPA averages were multiplied by -1 to create a new GPA scale ranging from -1 to -13 (-1 representing an A+ average, -13 representing an F average). In this new scale, -1 is now the biggest number and also represents the highest GPA attainable. If the GPA averages were left as positive numbers, an increase in social support coupled with an increase in student GPA would be represented by a negative Beta value. For example, if a student reported high levels of teacher support and also reported a high GPA, their survey would have a large number on

the subscale for teacher support, but would have a low number as a GPA. This would create a situation where the Beta value for this relationship would be negative, perhaps confusing readers into believing that an increase in teacher support leads to lower GPA. By multiplying all of the GPA averages by -1, the scale for GPA will remain the same, but the student in the example above would report high numbers for teacher support and also high numbers for GPA. This would yield a positive Beta value, allowing the results of the analysis to be understood more intuitively upon first glance. In the adapted GPA scale, reported scores ranged from -1 to -12 with a mean of -5.35.

**Table 2**

**Demographic Description of the Full Study Sample (N = 115)**

| Variable | | Mean | SD | Range | N | % |
|---|---|---|---|---|---|---|
| **Age:** | | 16.37 | 1.31 | 14 – 19 | 115 | 100% |
| **Gender:** | Male | | | | 115 | 100% |
| **Grade:** | 9th | | | | 21 | 18.3% |
| | 10th | | | | 26 | 22.6% |
| | 11th | | | | 36 | 31.3% |
| | 12th | | | | 32 | 27.8% |
| **Race:** | African American | | | | 99 | 86.1% |
| | Mixed | | | | 15 | 13.0% |
| | Other | | | | 1 | 0.9% |

| Variable | | Mean | SD | Range | N | % |
|---|---|---|---|---|---|---|
| **Mother's Education:** | Less Than High School | | | | 5 | 4.3% |
| | High School Degree | | | | 37 | 32.2% |
| | 2-Year College Degree | | | | 20 | 17.4% |
| | 4-Year College Degree | | | | 30 | 26.1% |
| | Graduate School | | | | 11 | 9.6% |
| | I Don't Know | | | | 12 | 10.4% |
| **Father's Education:** | Less Than High School | | | | 10 | 8.7% |
| | High School Degree | | | | 44 | 38.3% |
| | 2-Year College Degree | | | | 10 | 8.7% |
| | 4-Year College Degree | | | | 18 | 15.7% |
| | Graduate School | | | | 4 | 3.5% |
| | I Don't Know | | | | 29 | 25.2% |
| **Inadequate Family Expenses in the Past 6 Months?:** | Never | | | | 18 | 15.7% |
| | Rarely | | | | 27 | 23.5% |
| | Sometimes | | | | 33 | 28.7% |
| | Always | | | | 11 | 9.6% |
| | I Don't Know | | | | 26 | 22.6% |
| **Delayed Paying Bills in the Past 6 Months?:** | Never | | | | 43 | 37.4% |
| | Rarely | | | | 25 | 21.7% |
| | Sometimes | | | | 27 | 23.5% |
| | Always | | | | 3 | 2.6% |
| | I Don't Know | | | | 17 | 14.8% |
| **What is the Economic Condition of Your Family?:** | No Financial Difficulty | | | | 31 | 30.0% |
| | Some Financial Difficulty | | | | 52 | 45.2% |
| | Much Financial Difficulty | | | | 4 | 3.5% |
| | I Don't Know | | | | 28 | 24.3% |
| **Student GPA** | | -5.35 | 2.30 | -1 – -12 | 115 | 100% |

## Descriptive Statistics of Instrumentation

Statistics were calculated to describe the participant responses on the instruments used in this study. Ranges, means, and standard deviations for all subscales are presented in Table 3. Means and standard deviations were compared to those found by Malecki and Demaray (CASSS; 2002) and Wang, Willett, and Eccles (WWESES; 2011). The social support subscale means and standard deviations in the current sample were higher than those reported by Malecki and Demaray (CASSS; 2002). Additionally, the mean emotional and cognitive school engagement subscales scores of the sample were similar to those reported by Wang, Willett, and Eccles (WWESES; 2011), although, the behavioral subscale mean for the current sample was higher than the reported mean for the WWESES.

**Table 3**

**Sample Score Ranges, Means, and Standard Deviations (N = 115)**

| Instrument Subscales | Possible Range | Sample Range | Sample Mean | Sample SD |
|---|---|---|---|---|
| CASSS | | | | |
| Parent Support Scale | 12 - 72 | 20 - 72 | 52.74 | 14.02 |
| Teacher Support Scale | 12 - 72 | 12 - 72 | 51.02 | 14.13 |
| Peer Support Scale | 12 - 72 | 12 - 72 | 47.88 | 13.81 |
| WWESES | | | | |
| Behavioral School Engagement Scale | 7 - 35 | 17 - 35 | 29.14 | 3.76 |
| Emotional School Engagement Scale | 8 - 40 | 16 - 40 | 30.10 | 5.11 |
| Cognitive School Engagement Scale | 8 - 40 | 8 - 40 | 27.46 | 6.28 |

## Reliability of Instrumentation

Cronbach's Alphas were computed for each subscale of the CASSS and the WWESES to measure the internal consistency of each. Typically, an alpha level of .70 or higher is considered adequate, while an alpha level of .80 or higher is desirable (Heppner, Kivlighan, & Wampold, 1999). The alpha levels for each subscale are presented in Table 4. Using these two demarcations as a standard, most of the subscales met or exceeded acceptable alpha levels. The behavioral engagement subscale and emotional engagement subscale approached an alpha level of .70, but were slightly short of this standard.

**Table 4**

**Instrument Subscale Reliabilities**

| Instrument | # of Items | α in current sample | α in previous studies |
|---|---|---|---|
| CASSS | | | |
| Parent Support Subscale | 12 | .95 | .88 - .90 |
| Teacher Support Subscale | 12 | .95 | .92 - .94 |
| Peer Support Subscale | 12 | .94 | .94 - .95 |
| WWESES | | | |
| Behavioral School Engagement Subscale | 7 | .65 | .82 |
| Emotional School Engagement Subscale | 8 | .69 | .86 |
| Cognitive School Engagement Subscale | 8 | .83 | .82 |

## Descriptive Analyses

Pearson Product Scale Correlations were created between the study variables. These correlations are presented in Table 5. It appears as though there are statistically significant positive correlations between all of the study variables. It also appears that these positive correlations are not overly high, indicating that multicollinearity is unlikely. The sole exception is the correlation between the behavioral school engagement scale and the peer support scale, which was not significant.

**Table 5**

**Pearson Product Moment Correlations**

| **Variables** | Parent Support | Teacher Support | Peer Support | Behavioral School Engagement | Emotional School Engagement | Cognitive School Engagement |
|---|---|---|---|---|---|---|
| Parent Support | (.95) | | | | | |
| Teacher Support | .58** | (.95) | | | | |
| Peer Support | .37** | .43** | (.94) | | | |
| Behavioral School Engagement | .19** | .35** | .11 | (.65) | | |
| Emotional School Engagement | .24** | .51** | .22* | .53** | (.69) | |
| Cognitive School Engagement | .29** | .27** | .22* | .30** | .44** | (.83) |

Instrument reliabilities are placed along the diagonal in parentheses
*Significant at the $p < .05$ level
*Significant at the $p < .01$ level

## Hypothesis Testing

This study was created to examine how social support and school engagement affect African American male high school students' grades. Four research questions and their corresponding hypotheses were examined. The results of the analyses used to test the hypotheses are described below.

### Adjustments to Data

During administration of the surveys, the researcher believed that some students did not answer the questions to the best of their ability. It was observed that while the majority of students took 15-17 minutes to complete the survey, a small number of students completed the survey in roughly 4 minutes. Additionally, it was observed that a handful of students answered the survey while covering the survey questions with their non-dominate hand. When asked if the students in question answered to the best of their ability, all students reported that they had. The researcher marked the questionable surveys, identifying six in total.

Before the data were analyzed, the researcher conducted an additional analysis to eliminate outlying data points. Cook's Distance was used to determine if the marked surveys were statistically significant outliers. Cook's Distance is a method used in regression analyses which identifies data points that have an unusually large impact on a regression line. With 115 participants and three regression categories within each regression analysis (hypothesis 2: emotional engagement, behavioral engagement, cognitive engagement; hypothesis 3: parent support, teacher support, peer support), the recommended cutoff for Cook's Distance is .036 (Cook's $D = 4 / [N – (K + 1)]$). The

researcher then conducted two multiple regression analyses, one with the school engagement variables and one with the social support variables, and identified four participants that had a Cook's Distance that exceeded .036 in both multiple regressions. All of these four participants were previously identified by the researcher as potential outliers during survey administration. Therefore, these four participants were removed from the following data analyses in order to help prevent a biased estimate of the results, leaving a total of 111 participants.

**Research Question 1 / Hypotheses 1a – 1c**

Research question 1 was created to examine the differences between lower level ($9^{th}$ and $10^{th}$ grade) and upper level ($11^{th}$ and $12^{th}$ grade) students' perceptions of behavioral school engagement, cognitive school engagement, and emotional school engagement. A one-way Multivariate Analysis of Variance (MANOVA) was used to assess for main effects of student grade level on the three outcome variables. The results of the MANOVA are shown in Table 6. Hypotheses 1a, 1b, and 1c predicted that there would be no significant mean difference in school engagement based on a student's grade level. The results of the MANOVA upheld these hypotheses by indicating that there was no significant difference in behavioral school engagement, emotional school engagement, and cognitive school engagement based on a student's grade level ($F(3,107) = .014$, $p > .05$, $\eta^2 = .01$). Descriptive statistics for both groups are provided in Table 7.

**Table 6**

**MANOVA: Main Effects of Student Grade Level**

| | Value | F | Hyp df | Error df | $\eta^2$ |
|---|---|---|---|---|---|
| **Wilk's Lambda** | .014 | 2490.25 | 3.00 | 107.00 | .01 |

*Significant at the p <.05

**Table 7**

**Descriptive Statistics by Student Grade Level**

| | 9th / 10th Grade (n = 45) | | 11th / 12th Grade (n = 66) | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| Behavioral Engagement | 4.13 | .08 | 4.24 | .07 |
| Emotional Engagement | 3.73 | .09 | 3.58 | .08 |
| Cognitive Engagement | 3.49 | .10 | 3.26 | .12 |

**Research Question 2 / Hypotheses 2a – 2c**

Research question 2 was developed to examine if behavioral school engagement, emotional school engagement, and cognitive school engagement affected students' self-reported GPA. A multiple regression was run to examine the effect of all three school engagement variables on students' GPA. A multiple regression allows a researcher to examine the effect of multiple predictors on an outcome variable, controlling for other independent variables in the equation, and while simultaneously seeing the individual effect of each predictor. For this multiple regression, emotional school engagement, behavioral school engagement, and cognitive school engagement were all entered as independent variables and student GPA was entered at the sole dependent variable. The results indicate that cognitive school engagement and emotional school engagement did not account for a significant portion of the variance in student GPA. Behavioral school

engagement (β = .22, t = 2.09 , p <.05) was the only form of engagement that accounted for a significant portion of the variance in student GPA, indicating that as students experience increased behavioral engagement they can also be expected to have a higher GPA. Therefore, hypothesis 2b and 2c were upheld while hypothesis 2a was rejected. Together, all three variables accounted for 11% of the variance in student GPA. The results of the multiple regression are presented in Table 8.

**Table 8**

**Multiple Regression: School Engagement Types as Predictors of Student GPA**

| Variable | Adj. $R^2$ | SE | Stand. β | t | Zero-Order | Partial |
|---|---|---|---|---|---|---|
| **Model Summary** | .11 | | | | | |
| Behavioral School Engagement | | .41 | .22 | 2.09* | .32 | .20 |
| Emotional School Engagement | | .38 | .17 | 1.58 | .31 | .15 |
| Cognitive School Engagement | | .27 | .06 | .59 | .18 | .06 |

*Significant at the P < .05

**Research Question 3 / Hypotheses 3a – 3c**

Research question 3 was created to examine the effect of the difference sources of social support on student GPA. A multiple regression analysis was run with all three forms of social support (i.e. parent, teacher, peer) predicting students' GPA scores. Results indicated that parent support and teacher support did not account for a significant amount of the variance in students GPA's. Peer support, however, was found to account for a significant amount of the variance in student GPA (β = -.24, t = -2.36, p <.05), meaning that as students felt more supported by their peers, they attained lower GPA's. Therefore, hypothesis 3a and 3c were upheld, while hypothesis 3b was rejected.

Together, these variables account for 4.2% of the variance in student GPA. The results of the multiple regression are presented in Table 9.

**Table 9**

**Multiple Regression: Types of Social Support as Predictors of Student GPA**

| Variable | Adj. $R^2$ | SE | Stand. β | t | Zero-Order | Partial |
|---|---|---|---|---|---|---|
| **Model Summary** | .042 | | | | | |
| Parent Support | | .21 | .09 | .83 | .11 | .08 |
| Teacher Support | | .22 | .17 | 1.51 | .14 | .14 |
| Peer Support | | .19 | -.24 | *-2.36 | -.15 | -.22 |

*Significant at the P < .05

**Research Question 4 / Hypothesis 4a**

Research question 4 was developed to test the mediating effect of types of school engagement on the correlation between social support and student GPA. In order to confirm that mediation is present, four basic assumptions must be met. First, there must be a significant correlation between school engagement and student GPA. Second, there must be a significant correlation between social support and student GPA. Third, there must be a significant correlation between social support and the school engagement. Finally, to test for mediation, the significant correlation between social support and student GPA must either significantly decrease or reduce to insignificant when the correlation between social support and student GPA is controlled for with school engagement. Each of the tested paths is pictured in Figure 5.

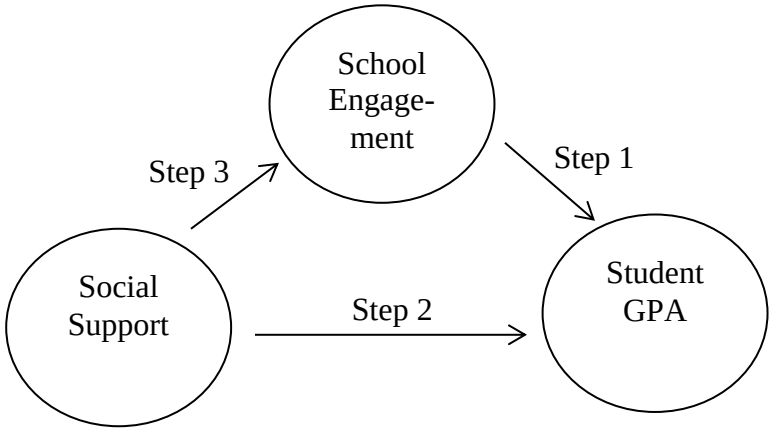


**Figure 5. Proposed Mediation Model**

Because there are multiple forms of school engagement and social support, each step of the process outlined above was tested with every individual source of engagement or social support in each step. For example, in the first step, school engagement must be significantly correlated with student GPA. To test this assumption, behavioral school engagement, cognitive school engagement, and emotional school engagement were each entered as the sole independent variable in a simple linear regression predicting student GPA. If a source of support was found to be a significant predictor of student GPA, it was kept as a potential mediator for future steps. If a form of support was found not to be a significant predictor of student GPA, then it was eliminated as a potential mediator. The same process was conducted in step two, with parent support, peer support, and teacher support entered as a sole predictor of student GPA. As in the first step, only sources of support that were found to significantly predict student GPA were retained for future steps.

The first step in the proposed mediation model was tested to see if each form of school engagement was a significant predictor of student GPA. To accomplish this, a simple linear regression was conducted for each of the three kinds of engagement on student GPA. First, behavioral engagement was regressed on student GPA. The results indicated that behavioral engagement was a significant predictor of student GPA ($\beta = .32$, $t = 3.54$, $p < .01$). Second, emotional school engagement was regressed on student GPA. The results indicated that emotional engagement was a significant predictor of student GPA ($\beta = .31$, $t = 3.37$, $p < .01$). Finally, cognitive engagement was regressed on student GPA. The results indicated that cognitive engagement was not a predictor of student GPA, but was quite close of the .05 cutoff ($\beta = .18$, $t = 1.95$, $p = .054$). Therefore, cognitive engagement was the only non-significant predictor of student GPA out of all three school engagement categories. Behavioral school engagement and emotional school engagement were both retained as potential mediators.

Next, step two of the model was tested to see if the three kinds of social support individually correlated with student GPA. To accomplish this, a simple linear regression was conducted with parent support, peer support, and teacher support regressed on student GPA. First, a regression was run with parent support as the independent variable and student GPA as the dependent variable. Results indicated that parent support was not a significant predictor of student GPA ($\beta = .11$, $t = .20$, $p = .26$). Second, a regression was run with peer support as the independent variable and student GPA and the dependent variable. Results indicated that peer support was not a significant predictor of student GPA ($\beta = -.15$, $t = -1.53$, $p = .13$). Finally, a regression was run with teacher

support as the independent variable and student GPA and the dependent variable. Results indicated that teacher support was not a significant predictor of student GPA ($\beta = .25$, $t = 1.42$, $p = .16$). Thus, at the end of step 2, there were found to be no significant predictors from social support to student GPA. Because a mediation model requires that all three steps outlined in Figure 5 are significant prior to testing for mediation, it can be assumed that a mediation was not present with the studied variables.

**Additional Analyses**

In addition to the hypotheses above, other analyses were conducted to examine the effect of social support on school engagement. Because behavioral school engagement and emotional school engagement were found to be significant predictors of student grades, they were used as dependent variables and peer support, parent support, and teacher support were used as the independent variables to find the effect of social support sources on these different forms of engagement. The first multiple regression investigated the effect of parent support, peer support, and teacher support on behavioral school engagement. Results indicated that teacher support was the only source of support that accounted for a significant amount of the variance in student behavioral engagement ($\beta = .34$, $t = 3.99$, $p < .01$). Together, these variables accounted for 7.4% of the variance in student behavioral engagement. The results of this multiple regression are presented in Table 10.

**Table 10**

**Social Support as Predictors of Behavioral School Engagement**

| Variable | Adj. $R^2$ | SE | Stand. β | t | Zero-Order | Partial |
|---|---|---|---|---|---|---|
| **Model Summary** | .074 | | | | | |
| Parent Support | | .05 | -.02 | -.14 | .15 | -.01 |
| Teacher Support | | .05 | .34 | *3.00 | .31 | .28 |
| Peer Support | | .05 | -.05 | -.47 | .07 | -.05 |

*Significant at the $p < .01$

The final multiple regression examined the impact of parent support, teacher support, and peer support on emotional school engagement. Results indicated that teacher support was the only variable that accounted for a significant portion of the variance in emotional school engagement ($\beta = .34$, $t = 3.99$, $p < .01$). Together, all forms of social support accounted for 18.9% of the variance in students' emotional school engagement. The results of this multiple regression are presented in Table 11.

**Table 11**

**Social Support as Predictors of Emotional School Engagement**

| Variable | Adj. $R^2$ | SE | Stand. β | t | Zero-Order | Partial |
|---|---|---|---|---|---|---|
| **Model Summary** | .189 | | | | | |
| Parent Support | | .06 | -.09 | -.87 | .19 | -.08 |
| Teacher Support | | .06 | .50 | *4.74 | .45 | .42 |
| Peer Support | | .05 | .01 | .11 | .17 | .17 |

*Significant at the $p < .001$

**Summary**

The results of the current research study were provided in this chapter. A description of the sample was collected and exclusion criteria from the sample were given. Descriptive statistics of the instrumentation were provided, including means, standard deviations, ranges, and reliability coefficients. Most of the scales in the study were found to have a Cronbach's Alpha of over .80. The behavioral school engagement and emotional school engagement scales were found to have Cronbach's Alpha estimates of .65 and .69, respectively, which is lower than desirable. Bivariate correlations among all variables were also provided, finding that all scales were significantly correlated with the exception of peer support and behavioral engagement, which were not found to be significantly correlated. Finally, data analyses were conducted to test the research hypotheses presented in Chapter III. Hypothesis 1a, 1b, and 1c were upheld, which indicated that no significant main effects were found between older and younger students on school engagement levels. Hypothesis 2b and 2c were upheld, while hypothesis 2a was rejected. This means that behavioral school engagement was the only significant predictor of student grades after controlling for cognitive and emotional engagement. Cognitive engagement and emotional engagement did not significantly predict student GPA. Hypothesis 3a and 3c were upheld, while hypothesis 3b was rejected. This indicates that peer support was the only form of social support that accounted for a significant portion of the variance in student GPA after controlling for peer and parent support. Parent support and teacher support did not significantly predict student GPA. Finally, hypothesis 4 was upheld. While both emotional and behavioral school

engagement were found to be signficant predictors of student GPA when tested through simple linear regressions, no form of social support significantly predicted student GPA when tested through a simple linear regression. Therefore, no mediation is present. Additional analyses were conducted to examine the effect of parent support, teacher support, and peer support on emotional engagement and behavioral engagement. The results of these multiple regressions revealed that teacher support is the only form of social support that accounts for a significant amount of the variance in both emotional and behavioral school engagement after controlling for parent support and peer support. In Chapter V, these results and their implications for school counselors and counselor educators will be discussed. Additionally, study limitations are described and directions for future research are proposed.

# CHAPTER V

# DISCUSSION

In Chapter IV, the results of the study investigating the impact of social support and school engagement on African American male high school students were presented. In the current chapter, a discussion of these results is offered, along with an examination of the study limitations, implications for counselors, counselor educators, and school personnel, and directions for future research.

## Overview

Researchers have shown that African American male students demonstrate lower educational outcomes than students of other racial backgrounds, including lower GPAs, lower standardized test scores, and higher dropout rates (McGuire, 2005; Noguera, 2005; Sims, 2012). In addition, African American male students are also most commonly punished in school and receive punishments that are more severe than students of other backgrounds (Meier, Stuart, & England, 1998). Punishing students severly and taking them out of class decreases the amount of time students spend learning in the classroom and contributes to the achievement gap between African American male students and students of other racial backgrounds (Coleman & Vaugn, 2000).

School engagement, or, how a student behaves in school, feels about school, and thinks about school (Fredericks et al., 2004) has been shown to have a significant impact

on school related outcomes. In fact, students with high levels of school engagement exhibit lower dropout rates, higher grades, and decreased behavior problems in class (Finn & Rock, 1997; Eccles & Barber, 1999; Wang & Holcombe, 2010).

The impact of school engagement on school success has prompted researchers to examine the environmental factors that affect school engagement for students. Social support, or, the perceived support that students experience from teachers, parents, and peers (Malecki & Demaray, 2002), looks to be a promising avenue through which school engagement and school related outcomes could be increased. Researchers have found that when students perceive that their teachers, parents, and peers are supportive of them, school engagement increases (Garcia-Reed, Reed, & Peterson, 2005), grades increase (Rosenfeld, Richmond, & Bowen, 2000), as well as a host of other positive school related outcomes (Demaray & Malecki, 2002).

Therefore, this study was created to examine the effect of social support on students' GPA, the effect of school engagement on student GPA, and to see if school engagement mediates the relationship of social support to student GPA. Full time, African American male high school students from several rural counties near Greensboro, North Carolina were invited to participate in this study. Participants completed the Child and Adolescent Social Support Scale (CASSS; Malecki & Demaray, 2002), the Wang, Willett, and Eccles School Engagement Scale (WWESES; Wang, Willett, & Eccles, 2011), questions asking for the students' grades in math, science, history, and English class, and a demographic questionnaire.

Overall, a number of findings emerged both in expected and unexpected directions. Potential explanations for these findings will be presented and supported with relevant research in the field. The results related to preliminary analyses, research hypotheses, and follow-up analyses are discussed in more detail below.

## Discussion of Results

### Preliminary Analyses

The zero-order correlations revealed several interesting findings. Many of the school engagement variables and social support variables were found to have consistent positive correlations. These results suggest that when students perceive that they are supported by individuals around them, they also tend to be more engaged in school. This result was anticipated because previous research has established that students with high levels of social support typically also have high school engagement levels (Demaray & Malecki, 2002; Garcia-Reed, Reed, & Peterson, 2005).

An unexpected finding was that the zero-order correlation table revealed that peer support was not correlated with behavioral school engagement ($r = .11$, $p > .05$). This finding suggests that among the current sample no matter how supported a student felt by his peers, it did not affect the way he acted in school or towards school related activities. This was unexpected because researchers have previously demonstrated that high levels of peer support (obtained using the CASSS) to be highly correlated with how minority students behave both in and outside of school (Malecki & Demaray, 2002). Interestingly, it appears that the CASSS was normed on a sample of 757 students, of which only 8 were African American. This may indicate that the peer support subscale of the CASSS

operates differently in a sample of African American male high school students than in a sample of students from mixed racial backgrounds.

Current findings revealed that the behavioral school engagement and emotional school engagement subscales had lower Cronbach's Alpha values than have been reported in previous research articles (Wang, Willett, & Eccles, 2011). While both the behavioral and emotional school engagement subscales had alpha values that approached the minimum recommended score of .70 (.65 and .69, respectively), falling below the .70 cutoff implies questionable reliability for these subscales. Additionally, some items on these subscales seemed to elicit a similar response from all participants, which could decrease the entire subscale's variance and applicability. For example, one item on the behavioral school engagement subscale asked "how often have you been in a physical fight at school?" Nearly every participant answered "Never or Almost Never" to this question. Therefore, this specific item may not be the most appropriate measure of behavioral school engagement because it contributes very little variance to the overall behavioral engagement subscale. Therefore, the emotional engagement and behavioral engagement subscales may need to be reevaluated as to their applicability within the high school aged African American male population.

**Research Question 1**

Research question 1 examined if there were differences between students of different grade levels ($9^{th}$ and $10^{th}$ vs. $11^{th}$ and $12^{th}$) in their perceived levels of cognitive, behavioral, and emotional school engagement levels. Previous research has established that students in higher grades are likely to report lower levels of school engagement as

compared to students in lower grades (Li et al., 2011; Wang & Eccles, 2012). Although, previous research has focused primarily on larger, mixed samples of students, meaning that the difference in school engagement levels within a high school aged African American male population have been unexamined. Hypothesis 1a through 1c suggested that there would be no significant difference between students of different grades in their levels of emotional, behavioral, or cognitive school engagement. These hypotheses were supported, suggesting there was no significant difference between African American male high school students of various grades in terms of their school engagement. However, it should be noted that the sample size of 111 individuals was not sufficient to meet the necessary power needed to observe a medium effect size. Therefore, differences in levels of engagement may be present, but the current study did not obtain a large enough sample size to detect it. On the other hand, it is possible that school engagement occurs differently in the African American male high school population than among students of other races. Multiple researchers have demonstrated that school engagement differs across racial lines (Mo & Singh, 2008; Wang & Eccles, 2012; Voelkl, 1997), perhaps indicating that school engagement is not a static concept that can be expected to react in similar ways across all demographics of students. If it is true that African American male high school students experience school engagement differently from other student groups, then it is possible that school engagement does not decrease within this population across time. Of course, a longitudinal study that follows students across all four years of high school, such as the study conducted by Li et al. (2011), which focuses on a cross section of students from different races, would allow researchers to

track engagement levels of students as they progress through school to provide concrete answers regarding changes in engagement over time. Until such a study is conducted, the question as to whether school engagement changes across time in African American male high school students will remain unanswered.

**Research Question 2**

Research question 2 was created to assess the proportion of variance in student GPA that could be accounted for by parent support, teacher support, and peer support. Research question 2a through 2c suggested that each form of support would not be a significant predictor of student GPA. This hypothesis was largely supported, with the exception of peer support. The multiple regression analysis found that peer support was a significant predictor of student GPA, but in the opposite direction that was expected ($\beta$ = -.24, t = -2.36, p <.05). This finding indicates that among this sample of African American male high school students, the more peer support they felt, the less likely they were to obtain high grades. This is contrary to earlier study findings that students who experience higher levels of peer support also tend to have better school related outcomes (Li et al., 2011; Ream & Rumberger, 2008).

The result that peer support was a predictor of lower grades for students in the current sample was perplexing, but is better understood within the context of previous research. Wang & Eccles (2012) found that students with higher levels of peer support had lower behavioral engagement. The researchers then divided their sample into two groups based on the kind of peers the students associated with (i.e. those who value school and those who do not). The researchers found that students who associated with

peers who did not value school was predictive of higher levels of peer support leading to lower school related outcomes. The opposite was true for students whose peers valued school. Based on this research, the same phenomenon could be occuring in the current sample. If participants in the current study tended to associate with peers who did not value school, this could lead them to under-value school as well, even though they reported high levels of peer support. Further analyses could look into this phenomenon to determine if it is indeed taking place within the current sample of students.

It is unclear why parent support and teacher support were not significant predictors of participants' GPAs. Previous research findings indicate that as students perceive more teacher and parent support, they tend to have higher grades (Woolley & Bowen, 2007; Rosenfeld, Richmond, & Bowen, 2000). This has been found to be especially true for teacher support, where perceived teacher support was a necessary condition for student success (Rosenfeld, Richmond, & Bowen, 2000). However, in the current study, only when parent support was removed from the multiple regression analysis was teacher support along with peer support found to be significant predictors of student GPA. Although, most previous researchers on teacher and parent support have tended to use samples of students with low or nonexistent numbers of African American male high school students. Therefore, further research is needed to determine if the results of this study are valid given that some subscales were normed on samples that included very low numbers of African American male high school students (Malecki and Demaray, 2002), or if the results are an accurate representation of the African American male high school student population.

Additionally, it is possible that the rural setting of the schools from which participants were drawn could have impacted how students interact with their parents and teachers. Brody, Stoneman, and Flor (1995) found in their study of 90 African American youth living in rural areas in the southeastern U.S. that family income and parental education played an important role in how families interacted with their children. The researchers conjectured that family income and education level are especially important in rural African American families because the lack of opportunity for high paying work and educational advancement is pronounced in rural townships. Census data indicates that lack of opportunity may be present in the county from which participants were drawn, as the median household income in North Carolina from 2008 to 2012 was over $8,000 higher than the median household income from the county in the current study ($38,004 versus $46,450). This could be why the state of North Carolina saw a 3.3% increase in population from 2010 to 2013, while the county from the current study saw a 1.9% decrease in population during the same years, indicating that residents may be choosing to relocate to more thriving economic communities. Additionally, prejudice and bias may limit opportunity even further for African Americans, especially males. Therefore, by conducting a regression of students' impressions of their family supportiveness to students' GPA's, potentially important factors such as family income and parents' education were not taken into account. A broader conceptualization of parent support and the factors that impact it may have given a richer description of how the rural environment affected parental supportive behaviors and, in turn, how these behaviors affected students.

The rural setting of the schools may also have impacted the findings related to perceived teacher support. Brody, Stoneman, and Flor (1995) conjectured that teachers may overtly or covertly dismiss the academic involvement of African American fathers in school proceedings, instead assuming that mothers are the ones who are most involved in academics with their children. It may therefore be possible that the same bias that teachers harbor against African American fathers in rural school settings may also be at play against African American male students in rural schools. If the overt and/or covert message coming from teachers and administrators is that African American males are not meant to be a part of school proceedings, this could impact students' view of themselves in relation to the school and those inside it. Students may, therefore, disconnect from teachers and administrators intentionally to avoid being the targets of prejudice, which may also make it more difficult to directly account for teacher support on student GPA.

**Research Question 3**

Research question 3 was created to assess the proportion of variance in student GPA that can be accounted for by behavioral school engagement, cognitive school engagement, and emotional school engagement. Hypotheses 3a through 3c indicated that each form of engagement would not be a significant predictor of student GPA. Results indicated that within the multiple regression framework, behavioral engagement was the only significant predictor of student GPA ($\beta = .22$, $t = 2.09$ , $p < .05$). Although, when each form of engagement was used as an individual independent variable and GPA was input as the dependent variable in a linear regression analysis, behavioral school engagement ($\beta = .32$, $t = 3.54$, $p < .01$) and emotional school engagement ($\beta = .31$, $t =$

3.37, $p < .01$) were found to be significant predictors of student GPA, and cognitive school engagement fell just below the level of significance to be a predictor of student GPA ($\beta = .18$, $t = 1.95$, $p = .054$). These results are consistent with previous research findings that school engagement is highly correlated with school related outcomes, especially grades and test scores (Caraway, Tucker, Reinke, & Hall, 2003; Marks, 2000; Wang & Holcombe, 2010). Also, the impact of behavioral engagement on student GPA in both a multiple regression and linear regression analysis is not surprising, as the effect of behavioral engagement on academic outcomes has been well researched since the early 1990's (Finn, 1993).

It is curious that emotional and cognitive school engagement were not significant predictors of student GPA in a multivariate regression analysis, yet were significant or nearly significant predictors of student GPA in a linear regression. These findings indicated that behavioral, emotional, and cognitive school engagement were strong predictors of GPA independently, but when the effects of each type of engagement were controlled for in a multiple regression analysis, the unique variance of behavioral engagement was the only one to contribute significant predictive power. A review of the zero-product correlations table reveals that cognitive and emotional school engagement are correlated positively, but not so highly correlating as to raise suspicion of multicolinearity. This could suggest that the sample size in the current study was too small to detect the true nature of how all three forms of engagement work together in tandem, but was powerful enough to find that all three forms were significant or nearly significant predictors of GPA on their own. Adding more participants to the current

study would likely have allowed further clarification into the results of Research Question 3.

**Research Question 4**

Research Question 4 examined the relationship of parent support, teacher support, and peer support to student GPA, along with the potentially mediating role of behavioral, emotional, and cognitive school engagement. In order to test for mediation, 3 steps must be shown to be significant prior to testing. These steps are outlined in Figure 5. The first step found that behavioral school engagement ($\beta = .32$, $t = 3.54$, $p < .01$) and emotional school engagement ($\beta = .31$, $t = 3.37$, $p < .01$) were both significant predictors of student GPA, and thus, were retained as potential mediators. The second step investigated the connection of parent, teacher, and peer support to student GPA, but revealed that no form of social support was connected to student GPA in a linear regression. Therefore, a mediation model was not tested and it can be assumed that mediation is not present.

In previous literature, the connection between school engagement and student grades (Caraway, Tucker, Reinke, & Hall, 2003; Finn, 1993; Marks, 2000; Wang & Holcombe, 2010) and social support and student grades (Woolley & Bowen, 2007; Rosenfeld, Richmond, & Bowen, 2000) has been well established. Therefore, it was expected that both of these concepts would be correlated with student GPA in the current study. Additionally, there is research to support the assumption that increased social support leads to an increase in school engagement (Brewster & Bowen, 2004; Klem & Connell, 2004; Wang & Eccles, 2012). When all of this past research is considered

together, the three components shown in Figure 5 appear theoretically to be present. However, in the current study, this was not found to be true.

It was surprising to find that no form of social support was connected to student GPA in the current study. Again, this may be due to the validation methods of the CASSS (i.e. only 8 African American students of 757 total students). Another possiblity is that the CASSS, in fact, is an appropriate measure of social support among African American male high school students, yet social support impacts this group in a unique fashion. It has been suggested by prior researchers that relationships with adults outside the home (such as teachers) are especially important in the lives of African American students because these relationships are seen as very difficult to attain (Stanton-Salazar, 1997). This could impact how students interact with the teacher support section of the CASSS, as the difference between a 3 and 4 on paper may look insignificant, yet may demonstrate a huge personal impact to the students surveyed. In either case, further research and validation is needed to ensure that the CASSS is measuring social support accurately for African American male high school students.

**Additional Analyses**

After these first 4 research questions were examined, two additional analyses were conducted. In Research Question 4, it was found that behavioral school engagement and emotional school engagement accounted for a significant amount of variance in student GPA, but because no form of social support was a significant predictor of student GPA, the 3$^{rd}$ step of the mediation analysis was not conducted.

Because it was already assumed that this step would be completed, yet there was no statistical necessity for doing so, it was added as an additional analysis.

For each additional analysis, these two forms of engagement were used as dependent variables and the three forms of social support was used as independent variables in a multiple regression analysis, to see if parent, teacher, and/or peer support account for a significant amount of variance in emotional and behavioral engagement.

In the first additional analysis, behavioral engagement was used as the outcome variable and the three types of social support were the independent variables. Results indicated that teacher support was the only significant predictor of behavioral school engagement ($\beta = .34$, $t = 3.99$, $p < .01$). This result was consistent with findings in the extant literature on social support, that teacher support is necessary to improve student problem behavior (Rosenfeld, Richmond, & Bowen, 2000; Wang & Dishion, 2011). Unexpectedly, parent support and peer support were not found to be significant predictors of behavioral engagement. Previous research findings suggest that both parent support and peer support are significantly correlated with student engagement (Demaray & Malecki, 2002), making this finding curious.

In the second additional analysis, emotional engagement was used as the outcome variable and the three types of social support were the independent variables. Results indicated that teacher support was the only significant predictor of emotional school engagement ($\beta = .34$, $t = 3.99$, $p < .01$). Again, it was expected that teacher support was found to be a significant predictor of emotional engagement, but it was surprising that parent support and peer support did not account for a significant amount of the variance

in levels of emotional engagement. This could be additional evidence for how central teacher support is to students' levels of behavioral and emotional engagement.

Numerous studies that have examined social support have done so with a limited number of African American male students as part of the sample. Therefore, the results of the current study may be evidence that social support reacts differently within an African American male high school population, or that the CASSS does not accurately measure social support for this population. In either case, researchers would be wise to validate the CASSS with a sample of high school aged African American males.

## Limitations

As with all research efforts, the current study has several limitations that should be taken into account when interpreting the results. First, the community environment that students lived in should be acknowledged. Students were recruited from seven public and private high schools located in rural school systems. Therefore, the local environment likely had an impact on the students in this study. It would therefore be problematic to generalize the results to African American male high school students in other regions of the United States.

Second, the survey administration methods could have biased the results. Students were drawn from their physical education or health class to be asked to participate in the current study. Therefore, students who were not enrolled in a physical education or health class at the time of data collection were unable to participate. This could potentially confound the results as students not enrolled in a physical education or health class may differ from study participants in a critical ways (e.g. attain higher GPAs,

take more honors classes). Without the opportunity to survey all students within each school, differences between students who participated and students who did not will remain unclear.

Third, the methods used to obtain student GPA may have impacted the results. Because students were asked to report their own grades in math, science, history, and English, it is possible that the grades provided were inaccurate representations of students actual school performance. Future research should utilize a more controlled measure of student performance, such as standardized test scores, to correlate with school engagement and social support, thus, providing more reliable data than student self-report.

Fourth, this study was time limited and it may be more appropriate to observe social support, school engagement, and student GPA through a longitudinal design. Following students throughout the school year would afford researchers the opportunity to observe how school engagement, social support, and grades evolve over time. Observing changes in a longitudinal process could provide more in-depth understanding to how school engagement and social support affect students, and if they change as students progress through school.

Fifth, inconsistencies on the peer support subscale in the zero-order correlations matrix and in Research Question 2 are concerning. Prior research has established that peer support should be correlated with better behavioral school engagement (Wang & Eccles, 2012; Malecki & Demaray, 2002), but in the current study, this was not the case. Additionally, peer supported acted in a negative way concerning student GPA, as increased peer support accounted for a decrease in student grades. These strange results

within the current sample could indicate that the CASSS may not adequately account for peer support in an African American male population. Although, the results themselves may be valid and offer an insight into how peer support unique affects African American male students from the sample. Until further validation efforts are completed demonstrating the validity of the CASSS within an African American male high school student population, the results from this study should be interpreted cautiously.

Sixth, while the effect size for research questions 2, 3, and 4 exceeded a power level of .80, the sample size for research question 1 did not achieve adequate power. Therefore, it could be that a difference in student engagement levels was present, but the current study was not capable of detecting them.

Finally, the low Cronbach's Alpha values on the behavioral school engagement subscale and the emotional school engagement subscale should be taken into account. It is unclear why these subscales have low alpha values compared to previous research findings (Wang, Willett, & Eccles, 2011), however, the values themselves indicate that these subscales fall below acceptable reliability standards. Because of this, results should be interpreted with prudence.

## Implications

School counselors often find themselves in a position of having much to do yet lacking the time or resources to do it effectively. With budgets for public schools dwindling, the pressure to maintain an effective and culturally responsive counseling action plan is getting more and more difficult for school counselors across the nation. The current study was created to identify which social support systems in the lives of

African American male high school students are important to improving school related outcomes, in hopes that school counselors can promote these relationships in their own schools to create a more supportive academic environment.

The finding that peer support negatively impacts GPA for students may affect the way that counselors interact with student groups. If there exists a moderating effect whereby school oriented peers and peers who are not school oriented pull students either towards school or away from school, it will be important for school counselors to create situations where positively oriented students can act as mentors to others who are less academically focused. Small group counseling can focus on creating connections and friendships between students who are struggling in school and students who are excelling. These new friendships may provide an environmental support, as finding new peer social supports in school creates a more comfortable and welcoming environment.

The finding that behavioral engagement is connected to student GPA is also an important outcome, largely because of the teachable nature of student behavior. School counselors should understand positive learning behaviors and teach them to students through psychoeducational means. For example, a simple behavioral checklist that includes positive learning behaviors could be given to every student in a class. Students could then rate themselves on how often they engaged in each learning behavior. The school counselor and students could work to improve the learning behaviors that are least prevalent. If this process began at the elementary school level, by high school, students would have had years of practice demonstrating positive learning behaviors, making these behaviors more habitual as students progress through school.

Perhaps the most important finding of this research came in the additional analysis section, with the finding that teacher support was the only form of social support that increased students' behavioral and emotional school engagement. In many school counseling programs, counselors-in-training are taught how to conduct individual and group counseling sessions with students, however, current findings indicate that students need rewarding relationships with their teachers to improve school related outcomes. Therefore, involving teachers in the counseling process with students could prove to be a successful way to increase students' success. Perhaps creating counseling groups with teachers and students together would help students and teachers forge a stronger bond and allow students to feel greater support by their teachers. Additionally, involving teachers in counseling sessions with students could help students see that their teachers are invested in their wellbeing and growth, creating a better overall school environment. In her groundbreaking book on race and race relations in schools, *Why are All the Black Kids Sitting Together in the Cafeteria?* (1999), Dr. Beverly Tatum described an intervention implemented in a Boston suburban school. African American students were bussed into this majority White suburban school and historically had performed poorly in their new environment. Teachers and administrators sought to correct this issue by implementing a program where the African American students who were struggling in school were allotted time each day to talk to their teachers about homework difficulties, social issues, or encounters with racism at their school. The results were astounding, as students saw grades of D's and F's change to B's and C's, with the occasional A. Also, grades were not the only thing to change. One teacher reflected on how the she saw these

daily meetings affecting her school's environment and her students' attitudes towards school:

> My students are more engaged. They aren't battling out a lot of the issues of their anger about being in a White community, coming in from Boston, where do I fit, I don't belong here. I feel that those issues that often came out in class aren't coming out in class anymore. I think they are being discussed in the SET [Student Efficacy Training] room, the kids feel more confidence. The kids' grades are higher, the homework response is greater, they're not afraid to participate in class, and I don't see them isolating themselves within the class. They are willing to sit with other students in class happily…I think it's made a very positive impact on their place in school and on their individual self-esteem (p.73)

In this one school, simply creating a space and allowing time for minority students and teachers to dialogue with one another created a meaningful change in how students viewed their school environment, which spilled over into other areas of their academics. If school counselors were able to create interaction opportunities as demonstrated by Dr. Tatum, perhaps similar results could be achieved.

In-service trainings may help teachers understand the unique position they hold in promoting the behavioral and emotional school engagement of their African American male students. School counselors should consider creating and implementing teacher trainings to both help teachers understand how important they are in the lives of their students and to give teachers tools to interact with their students in a multiculturally competent way. For example, a common practice taught to school counselors is to understand that when talking to students to focus on their problem behaviors and not the student as a person. Therefore, if a student is brought to the counseling office for yelling

in class, the counselor should focus on how the act of yelling is disruptive, but make sure to not imply that the student is bad or not valued because they yelled in class. By taking great care to make certain not to devalue the student as a person, the counselor is avoiding creating a *condition of worth*, a situation Carl Rogers (1957) described as a main road block to people being happy and healthy individuals. If school counselors create in-service trainings to help teachers implement ideas like the one described above, a stronger bond between teachers and minority male students could be created, assisting students in becoming more behaviorally and emotionally engaged in school.

Second, information from this study could be used to re-orchestrate school counseling curriculum. Many school counseling programs focus on how counselors can work with students, but far less time is spent teaching school counselors how to interact with other adults in the school. Teaching future school counselors how to create in-service trainings for teachers, how to consult with teachers and school staff, and how to facilitate meaningful interactions between students and adults in a school could all be important ways to heal and/or promote positive teacher-student relationships.

## Conclusion

The current study provided an exploration of how social support and school engagement predict the GPA of African American male high school students. In person recruitment and survey administration was used and a sample of 117 students participated in the current study. Of the 117 participants, 6 were labeled as outliers and removed from the data set, leaving 111 participants. Data were analyzed and the results of four hypotheses and additional analyses were presented. No significant mean differences

were found between older (11th and 12th grade) and younger (9th and 10th grade) students in behavioral school engagement, cognitive school engagement, or emotional school engagement. A multiple regression analysis indicated that peer support was the only significant source of social support that predicted student GPA, although, in the opposite direction than was expected. Surprisingly, teacher support and parent support did not predict student GPA. A second multiple regression analysis indicated that behavioral school engagement was the only form of school engagement that predicted student GPA. Cognitive school engagement and emotional school engagement did not predict student GPA. Follow up linear regressions indicated that emotional school engagement and behavior school engagement significantly predict student GPA alone, and cognitive school engagement is nearly a significant predictor of student GPA. A final analysis attempted to find if school engagement mediated the link from social support to student GPA. Linear regression analyses indicated that neither peer support, teacher support, nor parents support were significant individual predictors of student GPA, and therefore, no mediation was present. Follow up analyses indicated that teacher support was the only form of support that significantly predicted behavioral school engagement and emotional school engagement.

This study highlights how social support and school engagement sources act in different ways to both promote and inhibit African American male students' success in school. Due to unexpected zero-order correlations and findings from the peer support subscale, there appears to be a need to further test the CASSS to be certain that it is a valid instrument for exploring social support within an African American male high

school population. Future studies could contribute to the understanding of social support and school engagement by utilizing longitudinal research methods, validating the CASSS for use within an African American male population, replicating research efforts in varying communities, and purposively sampling to obtain a larger number of students. Although there remain unanswered questions regarding the impact of social support and school engagement on the academic lives of African American male students, this line of inquiry appears to be an important point of consideration for schools and school counselors alike.

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# APPENDIX A

## INSTRUCTIONS AND INFORMED CONSENT

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# Institutional Review Board Approval

THE UNIVERSITY of NORTH CAROLINA
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**To**: Mark Eades
Counsel and Ed Development

**From**: UNCG IRB

Authorized signature on behalf of IRB

**Approval Date**: 8/21/2013
**Expiration Date of Approval:** 8/20/2014

**RE**: Notice of IRB Approval by Expedited Review (under 45 CFR 46.110)
**Submission Type**: Initial
**Expedited Category**: 7.Surveys/interviews/focus groups
**Study #:** 13-0280
**Study Title**: School Engagement, Social Support, and Student Achievement of African American Male High School Students

This submission has been approved by the IRB for the period indicated. It has been determined that the risk involved in this research is no more than minimal.

**Study Description:**

This study will investigate how relationships with parents, teacher, and peers (social support) influence math grades of African American male high school students. Also, the research will analyze three kinds of school engagement (behavioral, emotional, and cognitive) to see if any of all of these mediate the relationships between social support and math grades.

**Regulatory and other findings:**

- This research, which involves children, meets criteria at 45 CFR 46.404 (research involving no greater than minimal risk). Permission of one parent or guardian is sufficient.
- **Your study is contingent upon approval from another site (school district). You will need to submit a modification at the time you receive that approval.**

**Investigator's Responsibilities**

Federal regulations require that all research be reviewed at least annually. It is the Principal Investigator's responsibility to submit for renewal and obtain approval before the expiration date. You may not continue any research activity beyond the expiration date without IRB approval. Failure to receive approval for continuation before the expiration date will result in automatic termination of the approval for this study on the expiration date.

Signed letters, along with stamped copies of consent forms and other recruitment materials will be scanned to you in a separate email. These consent forms must be used unless the IRB hasgiven you approval to waive this requirement.

You are required to obtain IRB approval for any changes to any aspect of this study before they can be implemented (use the modification application available at http://integrity.uncg.edu/institutional-review-board/). Should any adverse event or unanticipated problem involving risks to subjects or others occur it must be reported immediately to the IRB using the "Unanticipated Problem-Adverse Event Form" at the same website.
Please be aware that valid human subjects training for all members of research team need to be kept on file with the lead investigator. Please note that you will also need to remain in compliance with the university "Access To and Retention of Research Data" Policy which can be found at http://policy.uncg.edu/research_data/.

CC:
John Young, Counsel and Ed Development

**Letter To Parents (Pilot Study)**

Dear Parent or Guardian,

I am writing to invite your child (or children) to participate in a research study about student perceptions of parent, peer, and family relationships. This study is a research project directed by Mark P. Eades and supervised by Dr. J. Scott Young at the University of North Carolina at Greensboro. I hope to learn how African American male high school students relate to parents, teachers, and peers and if these relationships influence how these students engage with school and achieve academic success. My hope will be that school counselors will use the information gained from this study to promote the continued academic success of African American male high school students. I am inviting all African American male students in grades 9-12 to participate in this project. I am asking your permission to enroll your child or children in this project.

If your son participates, he will complete a survey, will participate in a focus group with other students, and will be given a $5 gift card for his cooperation. The focus group portion will be audio-recorded. This will take approximately 30 minutes to complete. The school will identify a time during the school day that will not interfere with your child's Math, English, or Science classes if at all possible. All responses will be completely confidential, meaning that only the researchers will have access to students' surveys. In addition, your son will be asked to *not* write his name on his survey to ensure that his answers will remain confidential.

If you are willing to have your child participate, please sign the attached permission form and then return it to your child's school at the front office. If within a week you have not returned the consent form, you may receive a reminder email or letter. If you have any questions about this research study, please feel free to call or email me, Mark Eades, with your question(s) at (919) 610-9174 or mpeades@uncg.edu.

Thank you for your time and consideration.

Sincerely,

Mark P. Eades

Doctoral Student, Counseling and Educational Development
(919) 610-9174
mpeades@uncg.edu

**Parent Consent Form (Pilot Study)**

PARENTAL CONSENT FORM

Project Title: School Engagement, Social Support, and Student Achievement of African American Male High School Students
Project Directors: Mark P. Eades and Dr. J. Scott Young

Participant's Name: _____

**What is this study about?**
This is a research project. Your child's participation is voluntary. I am interested in learning about how relationships affect how a student performs in school. I am trying to understand how people such as family, peers, and teachers influence African American male high school students' math grades as well as how they feel about school, think about school, and behave in school.

**Why are you asking my child to participate?**
Your child is being asked to participate because he is a male, African American high school student. I am interested in high school aged African American male students because there has not been a lot of research that has focused on these students in the past.

**What will you ask my child to do if I agree for him to be in this study?**
If you agree to allow your child to participate in this study, he will be asked to fill out a survey once at school and to answer questions about the survey he completes in a focus group. During the school day, your child will be asked to meet with me in a quiet area of the school and to fill out a survey with other students who have agreed to participate in this study. After the survey, I will ask your child about the survey he took to make sure that the questions on the survey make sense. The total amount of time this will take will be approximately 30 minutes. Before the survey is given, your son will also be given the opportunity to consent to taking the survey and answering questions afterwards. He will be told that if he does not wish to take the survey or answer questions, there will be no negative consequences of any kind. If your child consents to taking the survey, he will be instructed to NOT write his name on the survey packet to ensure that his answers will be confidential. I will also ask that your child NOT say his name while answering questions after the survey to keep his identity confidential.

**Are there any audio/video recordings?**
Yes. I will ask your child questions about the survey he took and will record his answers on a voice recorder. The purpose of this is to see how students understand my survey and if I need to make changes to the survey questions before having other students take it. Your child will be instructed to NOT say his name while answering questions to help his identity remain confidential. Because your child's voice will be potentially identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot

be guaranteed, although the researcher will try to limit access to the tape as described below.

**What are the dangers to my child?**
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk that students may feel slightly uncomfortable answering the survey questions. Your child can choose to not answer any question that he feels uncomfortable answering. There is also a risk that your child's participation in this survey project may be disclosed. While the researcher will do everything in his power to keep your child's participation in this research project confidential, other students may openly disclose their own participation as well the participation of others. There is also a risk that your child may miss part of a class to be in this study. The researcher will work with your child's school to attempt to administer the survey during a time that will not interfere with your child's Math, Science, or English class to minimize time away from academics.

If you have any concerns about your child's rights, how they are being treated or if you have questions, want more information or have suggestions, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.Questions about this project or benefits or risks associated with being in this study can be answered by Mark Eades (919-610-9174, mpeades@uncg.edu) or Dr. J. Scott Young (336-334-3423, jsyoung3@uncg.edu).

**Are there any benefits to your child for taking part in this research study?**
There are no direct benefits to participants in this study. Indirect benefits may come from thinking about how you view these topics, and how the information from this project will be used to impact counseling services at your school.

**Are there any benefits to society as a result of my child taking part in this research?**
Research is designed to benefit society by gaining new knowledge. By participating, your adolescent will have the opportunity to provide information that may become part of a program to help improve African American male high school students' outcomes in the future.

**Will we get paid for being in the study? Will it cost us anything?**
There are no costs to you or your son for participating in this study. Your son will be given a $5 gift card for participating in this study.
**How will you keep my information confidential?**
All information obtained in this study is strictly confidential unless disclosure is required by law. The researcher will make every effort to protect your son's privacy. Overall results of this study will be shared with schools and school systems that agree to

participate, but individual survey answers will not be disclosed. Answers that students provide during the focus group after the survey will only be heard by the researcher.

The surveys without names will be kept in a locked file cabinet owned by the researcher. A separate sheet that lists students' names who have taken the surveys will be kept on a password protected computer. Data from this study may be kept for seven years, in keeping with the requirements of academic journals, after which time the data may be destroyed. In any presentations, written reports, or publications, no student will be identifiable and only group results will be presented. After seven years, the researcher will shred all data associated with this research project.

Audio recordings will be kept on a password protected computer owned by the primary researcher. The audio recordings will be destroyed one year from when they were obtained. The primary researcher, Mark P. Eades, is the only person who will have access to these audio recordings during the research process.

**What if my child wants to leave the study or I want my child to leave the study?**
You have the right to refuse to allow your child to participate, or to withdraw your child from the study at any time, without penalty. If your child withdraws from the study, your son will still be given a $5 gift card if he has completed the entire survey and answered questions from the researcher after taking the survey. Your child also has the right to withdraw from the study at any time. If your child does withdraw, it will not affect your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

**What about new information/changes in the study?**
If significant new information relating to the study becomes available which may relate to your willingness to allow your child to participate, this information will be provided to you.

**Voluntary Consent by Participant:**
By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study.
Name of Student: _____

Consent for child to participate: Yes _____ No _____

Signature of Parent or Guardian: _____ Date: _____

Printed Name of Parent Providing Consent: _____

**Please return this entire form, in the envelope that it was sent home in, to the front office of your son's school by the end of the week.**

**18 And Up Consent Form (Pilot Study)**

CONSENT FORM FOR STUDENTS 18 AND OLDER

Project Title: School Engagement, Social Support, and Student Achievement of African American Male High School Students
Project Directors: Mark P. Eades and Dr. J. Scott Young

Participant's Name: _____

**What is this study about?**
This is a research project. Your participation is voluntary. I am interested in learning about how relationships affect how a student performs in school. I am trying to understand how people such as family, peers, and teachers influence African American male high school students' math grades as well as how they feel about school, think about school, and behave in school.

**Why are you asking me to participate?**
You are being asked to participate because he is a male, African American high school student. I am interested in high school aged African American male students because there has not been a lot of research that has focused on these students in the past.

**What will you ask me to do if I agree to be in this study?**
If you agree to participate in this study, you will be asked to fill out a survey once at school and then answer questions about the survey after you take it. During the school day, you will be asked to meet with me in a quiet area of the school and to fill out a survey with other students who have agreed to participate in this study. Afterwards, I will ask you questions about the survey and will record your answers with a voice recorder during a focus group. This survey will take approximately 15 minutes to complete and I will ask questions for another 15 minutes after the survey. If you consent to taking the survey, you will be instructed to NOT write your name on the survey packet to ensure that answers will be confidential. I will also ask you to not say your name while participating in the focus group so that your identity can remain confidential.

**Are there any audio/video recordings?**
Yes. If you agree to participate, I will ask you questions about the survey and will record your answers on a voice recorder. The purpose of this is to see how students understand my survey and if I need to make changes to the survey questions before having other students take it. You will be instructed to NOT say your name while answering questions to help your identity remain confidential. Because your voice may be identifiable by anyone who hears the tape, your confidentiality for things you say on the tape cannot be guaranteed, although the researcher will try to limit access to the tape as described below.

**What are the dangers to me?**
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk that you may feel slightly uncomfortable answering the survey questions. You can choose to not answer any question that you feel uncomfortable answering. There is also a risk that your participation in this survey project may be disclosed. While the researcher will do everything in his power to keep your participation in this research project confidential, other students may openly disclose their own participation as well the participation of others. There is also a risk that you may miss part of a class to be in this study. The researcher will work with your school to attempt to administer the survey during a time that will not interfere with your Math, Science, or English class to minimize time away from academics.

If you have any concerns about your rights, how you are being treated or if you have questions, want more information or have suggestions, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351. Questions about this project or benefits or risks associated with being in this study can be answered by Mark Eades (919-610-9174, mpeades@uncg.edu) or Dr. J. Scott Young (336-334-3423, jsyoung3@uncg.edu).

**Are there any benefits to you for taking part in this research study?**
There are no direct benefits to participants in this study. Indirect benefits may come from thinking about how you view these topics, and how the information from this project will be used to impact counseling services at your school.

**Are there any benefits to society as a result of me taking part in this research?**
Research is designed to benefit society by gaining new knowledge. By participating, you will have the opportunity to provide information that may become part of a program to help improve African American male high school students' outcomes in the future.

**Will I get paid for being in the study? Will it cost us anything?**
There are no costs to you for participating in this study. You will be given a $5 gift card for participating in this study.

**How will you keep my information confidential?**
All information obtained in this study is strictly confidential unless disclosure is required by law. The researcher will make every effort to protect your privacy. Overall results of this study will be shared with schools and school systems that agree to participate, but individual survey answers and student responses during the focus group will not be disclosed.
The surveys without names will be kept in a locked file cabinet owned by the researcher. A separate sheet that lists students' names who have taken the surveys will be kept on a

password protected computer. Data from this study may be kept for seven years, in keeping with the requirements of academic journals, after which time the data may be destroyed. In any presentations, written reports, or publications, no student will be identifiable and only group results will be presented. After seven years, the researcher will shred all data associated with this research project.

Audio recordings will be kept on a password protected computer owned by the primary researcher. The audio recordings will be destroyed one year from when they were obtained. The primary researcher, Mark P. Eades, is the only person who will have access to these audio recordings during the research process.

**What if I want to leave the study?**
You have the right to refuse to participate, or to withdraw from the study at any time, without penalty. If you withdraw from the study, you will still be given a $5 gift card if you have completed the entire survey and participated in the focus group after the survey. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

**What about new information/changes in the study?**
If significant new information relating to the study becomes available which may relate to your willingness to participate, this information will be provided to you.

**Voluntary Consent by Participant:**
By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and can legally consent to participating in this study.

Printed Name of Student: _____

Consent to Participate: Yes _____ No _____

Signature of Student: _____ Date: _____

**12 and Up Assent Form (Pilot Study)**

# Assent Form

**Title of Study:** School Engagement, Social Support, and Student Achievement of African American Male High School Students
**Principal Investigator:** Mark Eades
**Principal Investigator Department:** Counsel and Ed Development
**Principal Investigator Phone number:** (919) 610-9174
**Principal Investigator Email Address:** mpeades@uncg.com
**Faculty Advisor**: Dr. J Scott Young
**Faculty Advisor Contact Information**: jsyoung3@uncg.edu

Why am I here?

We want to tell you about a research study we are doing. Research studies are done to find better ways of helping and understanding people or to get information about how things work. In this study we want to learn about how relationships influence how African American male high school students perform in school. You are being asked to be in the study because you are an African American male high school student. In a research study, only people who want to take part are allowed to do so.

**WHAT WILL HAPPEN TO ME IN THIS RESEARCH STUDY?**

If it is okay with you and you agree to join this study, you will be asked to answer questions on a survey in a focus group. After taking the survey, I will ask you and the other students questions about the survey and record your answers on a voice recorder. The total time to complete this survey and questions afterwards is approximately 30 minutes.

**HOW LONG WILL I BE IN THE RESEARCH STUDY?**

You will be in this study for 30 minutes. Once you are finished completing the survey and answering questions about the survey, you will no longer be a part of this research study.

**CAN ANYTHING BAD HAPPEN TO ME?**

Sometimes the questions we ask you might seem strange and make you feel uncomfortable/sad. If anything hurts or you are uncomfortable with some of the questions, please let us know and we will stop or do whatever we can to make you feel better.

It is also possible that other students or staff in your school will find out about your participation in this study.

**CAN ANYTHING GOOD HAPPEN TO ME IN THIS RESEARCH STUDY?**

We do not know if you will be helped by being in this project. However, we may learn something that will help other African American male high school students in the future.

**DO I HAVE OTHER CHOICES?**
You do not have to be in this study. If at any point during the study you decide that you no longer wish to participate, you will be allowed to stop without any negative consequences.

**WHAT IF I DO NOT WANT TO BE IN THIS RESEARCH STUDY?**
You do not have to be part of this project. It is up to you. You can even say okay now, but change your mind later. All you have to do is tell us. No one will be mad at you if you change your mind.

**WHAT ABOUT MY CONFIDENTIALITY?**
We will do everything possible to make sure that your data and or records are kept confidential. Unless required by law the following people can review your study records: Mark Eades or Dr. J. Scott Young. They are required to keep your personal information confidential.

**WILL I BE PAID FOR BEING IN THIS RESEARCH STUDY?**
You will be given a $5 gift card for completing this study. If you leave the study prior to taking the survey and answering questions after the survey, you will be allowed to leave without anything bad happening to you, but you will not be given a $5 gift card.

**DO MY PARENTS KNOW ABOUT THIS RESEARCH STUDY?**
This study has been explained to your parent/parents/guardian and they have given permission for you to be in it.

**WHAT IF I HAVE QUESTIONS?**
You can ask Mark Eades (mpeades@uncg.edu, 919-610-9174) or Dr. J. Scott Young (jsyoung3@uncg.edu) anything about the study. You can also call the Director in the Office Research Integrity at 336-256-1482 or 855-251-2351.

**ASSENT**

This study has been explained to me and I am willing to be in it.

_____ _____

Student's Name (printed) and Signature Date

Check which applies below

☐ The child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.

☐ The child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

_____ _____

Signature of Person Obtaining Assent Date

**In Person Recruitment Script (Pilot Study)**

Hello,

I'm Mark, a doctoral student at UNCG, and you have been selected to be a potential participant in my study. This study hopes to find out how relationships impact the math grades and school behaviors of African American male high school students. If you agree to be a part of this study, you will take a survey during the school day and then I will ask you and a group of other students questions about the survey you took while voice recording your answers. This will take approximately 30 minutes to complete. You will be asked to **NOT** put your name on the survey to make sure that your answers are completely confidential. I will also not record your names or any identifying information when asking you about the survey. Once you are finished with the survey and follow up questions, you will be given a $5 gift card for participating.

What I am giving you now is a letter containing information for your parents or guardians. In order to be a part of my study, you must have a parent or guardian read and sign this consent form, then return it to the school's front office by Friday of this week. If you do not return this form, you cannot be a part of this study.

Does anyone have any questions for me at this time?

If you have any questions about my study or if you think of a question you would like to ask me, I can be contacted at (919) 610-9174 or mpeades@uncg.edu (if possible, write this information on a whiteboard). My contact information is also provided on the consent form I just gave you.

If there are no other questions, I want to say thank you for your time. I hope to see all of you again soon.

**Letter to Parents (Full Study)**

Dear Parent or Guardian,

I am writing to invite your child (or children) to participate in a research study about student perceptions of parent, peer, and family relationships. This study is a research project directed by Mark P. Eades and supervised by Dr. J. Scott Young at the University of North Carolina at Greensboro. I hope to learn how African American male high school students relate to parents, teachers, and peers and if these relationships influence how these students engage with school and achieve academic success. My hope will be that school counselors will use the information gained from this study to promote the continued academic success of African American male high school students. I am inviting all African American male students in grades 9-12 to participate in this project. I am asking your permission to enroll your child or children in this project.

If your son participates, he will complete a 15-minute survey during the school day and will be given a $5 gift card for his cooperation. The school will identify a time during the school day that will not interfere with your child's Math, English, or Science classes if at all possible. All responses will be completely confidential, meaning that only the researchers will have access to students' surveys. In addition, your son will be asked to *not* write his name on his survey to ensure that his answers will remain anonymous.

If you are willing to have your child participate, please sign the attached permission form and then return it to your child's school at the front office. If within a week you have not returned the consent form, you may receive a reminder email or letter. If you have any questions about this research study, please feel free to call or email me, Mark Eades, with your question(s) at (919) 610-9174 or mpeades@uncg.edu.

Thank you for your time and consideration.

Sincerely,

Mark P. Eades

Doctoral Student, Counseling and Educational Development
(919) 610-9174
mpeades@uncg.edu

**Parental Consent Form (Full Study)**

PARENTAL CONSENT FORM

Project Title: School Engagement, Social Support, and Student Achievement of African American Male High School Students
Project Directors: Mark P. Eades and Dr. J. Scott Young

Participant's Name: _____

**What is this study about?**
This is a research project. Your child's participation is voluntary. I am interested in learning about how relationships affect how a student performs in school. I am trying to understand how people such as family, peers, and teachers influence African American male high school students' math grades as well as how they feel about school, think about school, and behave in school.

**Why are you asking my child to participate?**
Your child is being asked to participate because he is a male, African American high school student. I am interested in high school aged African American male students because there has not been a lot of research that has focused on these students in the past.

**What will you ask my child to do if I agree for him to be in this study?**
If you agree to allow your child to participate in this study, he will be asked to fill out a survey once at school. During the school day, your child will be asked to meet with me in a quiet area of the school and to fill out a survey with other students who have agreed to participate in this study. This survey will take approximately 15 minutes to complete. Before the survey is given, your son will also be given the opportunity to consent to taking the survey. He will be told that if he does not wish to take the survey, there will be no negative consequences of any kind. If your child consents to taking the survey, he will be instructed to NOT write his name on the survey packet to ensure that his answers will be confidential.

**Are there any audio/video recordings?**
No.

**What are the dangers to my child?**
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk that students may feel slightly uncomfortable answering the survey questions. Your child can choose to not answer any question that he feels uncomfortable answering. There is also a risk that your child's participation in this survey project may be disclosed. While the researcher will do everything in his power to keep your child's participation in this research project confidential, other students may openly disclose their own

participation as well the participation of others. There is also a risk that your child may miss part of a class to be in this study. The researcher will work with your child's school to attempt to administer the survey during a time that will not interfere with your child's Math, Science, or English class to minimize time away from academics.

If you have any concerns about your child's rights, how they are being treated or if you have questions, want more information or have suggestions, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.Questions about this project or benefits or risks associated with being in this study can be answered by Mark Eades (919-610-9174, mpeades@uncg.edu) or Dr. J. Scott Young (336-334-3423, jsyoung3@uncg.edu).

**Are there any benefits to your child for taking part in this research study?**
There are no direct benefits to participants in this study. Indirect benefits may come from thinking about how you view these topics, and how the information from this project will be used to impact counseling services at your school.

**Are there any benefits to society as a result of my child taking part in this research?**
Research is designed to benefit society by gaining new knowledge. By participating, your adolescent will have the opportunity to provide information that may become part of a program to help improve African American male high school students' outcomes in the future.

**Will we get paid for being in the study? Will it cost us anything?**
There are no costs to you or your son for participating in this study. Your son will be given a $5 gift card for participating in this study.

**How will you keep my information confidential?**
All information obtained in this study is strictly confidential unless disclosure is required by law. The researcher will make every effort to protect your son's privacy. Overall results of this study will be shared with schools and school systems that agree to participate, but individual survey answers will not be disclosed.

The surveys without names will be kept in a locked file cabinet owned by the researcher. A separate sheet that lists students' names who have taken the surveys will be kept on a password protected computer. Data from this study may be kept for seven years, in keeping with the requirements of academic journals, after which time the data may be destroyed. In any presentations, written reports, or publications, no student will be identifiable and only group results will be presented. After seven years, the researcher will shred all data associated with this research project.

**What if my child wants to leave the study or I want my child to leave the study?**
You have the right to refuse to allow your child to participate, or to withdraw your child from the study at any time, without penalty. If your child withdraws from the study, your son will still be given a $5 gift card if he has completed the entire survey. Your child also has the right to withdraw from the study at any time. If your child does withdraw, it will not affect your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

**What about new information/changes in the study?**
If significant new information relating to the study becomes available which may relate to your willingness to allow your child to participate, this information will be provided to you.

**Voluntary Consent by Participant:**
By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study.

Name of Student: _____

Consent for child to participate: Yes _____ No _____

Signature of Parent or Guardian: _____ Date: _____

Printed Name of Parent Providing Consent: _____

**18 and Up Consent Form (Full Study)**

CONSENT FORM FOR STUDENTS 18 AND OLDER

Project Title: School Engagement, Social Support, and Student Achievement of African American Male High School Students
Project Directors: Mark P. Eades and Dr. J. Scott Young

Participant's Name: _____

**What is this study about?**
This is a research project. Your participation is voluntary. I am interested in learning about how relationships affect how a student performs in school. I am trying to understand how people such as family, peers, and teachers influence African American male high school students' math grades as well as how they feel about school, think about school, and behave in school.

**Why are you asking me to participate?**
You are being asked to participate because he is a male, African American high school student. I am interested in high school aged African American male students because there has not been a lot of research that has focused on these students in the past.

**What will you ask me to do if I agree to be in this study?**
If you agree to participate in this study, you will be asked to fill out a survey once at school. During the school day, you will be asked to meet with me in a quiet area of the school and to fill out a survey with other students who have agreed to participate in this study. This survey will take approximately 15 minutes to complete. If you consent to taking the survey, you will be instructed to NOT write your name on the survey packet to ensure that answers will be confidential.

**Are there any audio/video recordings?**
No.

**What are the dangers to me?**
The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. There is a risk that you may feel slightly uncomfortable answering the survey questions. You can choose to not answer any question that you feel uncomfortable answering. There is also a risk that your participation in this survey project may be disclosed. While the researcher will do everything in his power to keep your participation in this research project confidential, other students may openly disclose their own participation as well the participation of others. There is also a risk that you may miss part of a class to be in this study. The researcher will work with your school to attempt to administer the survey

during a time that will not interfere with your Math, Science, or English class to minimize time away from academics.

If you have any concerns about your rights, how you are being treated or if you have questions, want more information or have suggestions, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351. Questions about this project or benefits or risks associated with being in this study can be answered by Mark Eades (919-610-9174, mpeades@uncg.edu) or Dr. J. Scott Young (336-334-3423, jsyoung3@uncg.edu).

**Are there any benefits to you for taking part in this research study?**
There are no direct benefits to participants in this study. Indirect benefits may come from thinking about how you view these topics, and how the information from this project will be used to impact counseling services at your school.

**Are there any benefits to society as a result of me taking part in this research?**
Research is designed to benefit society by gaining new knowledge. By participating, you will have the opportunity to provide information that may become part of a program to help improve African American male high school students' outcomes in the future.

**Will I get paid for being in the study? Will it cost us anything?**
There are no costs to you for participating in this study. You will be given a $5 gift card for participating in this study.

**How will you keep my information confidential?**
All information obtained in this study is strictly confidential unless disclosure is required by law. The researcher will make every effort to protect your privacy. Overall results of this study will be shared with schools and school systems that agree to participate, but individual survey answers will not be disclosed.

The surveys without names will be kept in a locked file cabinet owned by the researcher. A separate sheet that lists students' names who have taken the surveys will be kept on a password protected computer. Data from this study may be kept for seven years, in keeping with the requirements of academic journals, after which time the data may be destroyed. In any presentations, written reports, or publications, no student will be identifiable and only group results will be presented. After seven years, the researcher will shred all data associated with this research project.

**What if I want to leave the study?**
You have the right to refuse to participate, or to withdraw from the study at any time, without penalty. If you withdraw from the study, you will still be given a $5 gift card if

you have completed the entire survey. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state.

**What about new information/changes in the study?**
If significant new information relating to the study becomes available which may relate to your willingness to participate, this information will be provided to you.

**Voluntary Consent by Participant:**
By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and can legally consent to participating in this study.

Printed Name of Student: _____

Consent to Participate: Yes _____ No _____

Signature of Student: _____ Date: _____

**12 and Up Assent Form (Full Study)**

# Assent Form

**Title of Study:** School Engagement, Social Support, and Student Achievement of African American Male High School Students
**Principal Investigator:** Mark Eades
**Principal Investigator Department:** Counsel and Ed Development
**Principal Investigator Phone number:** (919) 610-9174
**Principal Investigator Email Address:** mpeades@uncg.com
**Faculty Advisor**: Dr. J Scott Young
**Faculty Advisor Contact Information**: jsyoung3@uncg.edu

Why am I here?

We want to tell you about a research study we are doing. Research studies are done to find better ways of helping and understanding people or to get information about how things work. In this study we want to learn about how relationships influence how African American male high school students perform in school. You are being asked to be in the study because you are an African American male high school student. In a research study, only people who want to take part are allowed to do so.

## WHAT WILL HAPPEN TO ME IN THIS RESEARCH STUDY?

If it is okay with you and you agree to join this study, you will be asked to answer questions on a survey. The total time to complete this survey is approximately 15 minutes.

## HOW LONG WILL I BE IN THE RESEARCH STUDY?

You will be in this study for 15 minutes. Once you are finished completing the survey, you will no longer be a part of this research study.

## CAN ANYTHING BAD HAPPEN TO ME?

Sometimes the questions we ask you might seem strange and make you feel uncomfortable/sad. If anything hurts or you are uncomfortable with some of the questions, please let us know and we will stop or do whatever we can to make you feel better.

It is also possible that other students or staff in your school will find out about your participation in this study.

**CAN ANYTHING GOOD HAPPEN TO ME IN THIS RESEARCH STUDY?**

We do not know if you will be helped by being in this project. However, we may learn something that will help other African American male high school students in the future.

**DO I HAVE OTHER CHOICES?**

You do not have to be in this study. If at any point during the study you decide that you no longer wish to participate, you will be allowed to stop without any negative consequences.

**WHAT IF I DO NOT WANT TO BE IN THIS RESEARCH STUDY?**

You do not have to be part of this project. It is up to you. You can even say okay now, but change your mind later. All you have to do is tell us. No one will be mad at you if you change your mind.

**WHAT ABOUT MY CONFIDENTIALITY?**

We will do everything possible to make sure that your data and or records are kept confidential.

Unless required by law the following people can review your study records: Mark Eades or Dr. J. Scott Young. They are required to keep your personal information confidential.

**WILL I BE PAID FOR BEING IN THIS RESEARCH STUDY?**

You will be given a $5 gift card for completing this study. If you leave the study prior to taking the survey, you will be allowed to leave without anything bad happening to you, but you will not be given a $5 gift card.

**DO MY PARENTS KNOW ABOUT THIS RESEARCH STUDY?**

This study has been explained to your parent/parents/guardian and they have given permission for you to be in it.

**WHAT IF I HAVE QUESTIONS?**

You can ask Mark Eades (mpeades@uncg.edu, 919-610-9174) or Dr. J. Scott Young (jsyoung3@uncg.edu) anything about the study. You can also call the Director in the Office Research Integrity at 336-256-1482 or 855-251-2351.

**ASSENT**

This study has been explained to me and I am willing to be in it.

_____ _____

Student's Name (printed) and Signature Date

Check which applies below

☒ The child is capable of reading and understanding the assent form and has signed above as documentation of assent to take part in this study.

☐ The child is not capable of reading the assent form, but the information was verbally explained to him/her. The child signed above as documentation of assent to take part in this study.

_____ _____

Signature of Person Obtaining Assent Date

**In Person Recruitment Script (Full Study)**

Hello,

I'm Mark, a doctoral student at UNCG, and you have been selected to be a potential participant in my study. This study hopes to find out how relationships impact the math grades and school behaviors of African American male high school students. If you agree to be a part of this study, you will take a 15-minute survey during the school day. You will be asked to **NOT** put your name on the survey to make sure that your answers are completely confidential. Once you are finished with the survey, you will be given a $5 gift card for participating.

What I am giving you now is a letter containing information for your parents or guardians. In order to be a part of my study, you must have a parent or guardian read and sign this consent form, then return it to the school's front office by Friday of this week. If you do not return this form, you cannot be a part of this study.

Does anyone have any questions for me at this time?

If your parents have any questions about my study or if you think of a question you would like to ask me, I can be contacted at (919) 610-9174 or mpeades@uncg.edu (if possible, write this information on a whiteboard). My contact information is also provided on the consent form I just gave you.

If there are no other questions, I want to say thank you for your time. I hope to see all of you again soon.

## APPENDIX B

## INSTRUMENTATION

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**Demographic Questionnaire (Pilot Study)**

MALE of FEMALE (circle one) AGE: _____ GRADE: _____

RACE (circle one) SCHOOL: _____

1 - African American DATE: _____
2 - Asian American
3 - White
4 - Latino American
5 - Native American
6 - Other

**Child and Adolescent Social Support Scale (CASSS) (Pilot Study)**

On the next two pages, you will be asked to respond to sentences about some form of support or help that you might get from either a parent, a teacher, a classmate, or a close friend. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

For each sentence you are asked to provide two responses. First, rate how often you receive the support described and then rate how important the support is to you. Below is an example. Please read it carefully before starting your own ratings.

---

| | HOW OFTEN? | | | | | | | IMPORTANT? | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NEVER | ALMOST NEVER | SOME OF THE TIME | MOST OF THE TIME | ALMOST ALWAYS | ALWAYS | | NOT IMPORTANT | IMPORANT | VERY IMPORTANT |
| 1. My teacher(s) helps me solve problems | 1 | 2 | (3) | 4 | 5 | 6 | | 1 | (2) | 3 |

---

In this example, the student describes his 'teacher helps me solve problems' as something that happens 'some of the time' and that is 'important' to him.

**Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!**

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| My Parent(s)… | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Parent(s)…** | | | | | | | | | |
| 1. …Show me they are proud of me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 2. …Understand me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 3. …Listen to me when I need to talk. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 4. …Make suggestions when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 5. …Give me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 6. …Help me solve problems by giving me information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 7. …Tell me I did a good job when I do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 8. …Nicely tell me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 9. …Reward me when I've done something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 10. …Help me practice my activities. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 11. …Take time to help me decide things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 12. …Get me many of the things that I need. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| My Teacher(s)… | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Teacher(s)…** | | | | | | | | | |
| 13. …Cares about me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 14. …Treats me fairly. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 15. …Makes it OK to ask questions. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 16. …Explains things I don't understand. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 17. …Shows me how to do things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 18. …Helps me solve problems by giving me information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 19. …Tells me I did a good job when I've done something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 20. …Nicely tells me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 21. …Tells me how well I do on tasks. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 22. …Makes sure I have what I need for school. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 23. …Takes time to help me learn to do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 24. …Spends time with me when I need help. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| My Classmates | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Classmates…** | | | | | | | | | |
| 25. …Treat me nicely. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 26. …Like most of my ideas and opinions. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 27. …Pay attention to me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 28. …Give me ideas when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 29. …Give me information so I can learn new things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 30. …Give me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 31. …Tell me I did a good job when I do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 32. …Nicely tell me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 33. …Notice when I have worked hard. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 34. …Ask me to join activities. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 35. …Spend time doing things with me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 36. …Help me with projects in class. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| My Close Friend | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Close Friend…** | | | | | | | | | |
| 37. …Understands my feelings. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 38. …Sticks up for me if others are treating me badly. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 39. …Helps me when I'm lonely. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 40. …Gives me ideas when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 41. …Gives me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 42. …Explains things that I don't understand. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 43. …Tells me he or she likes what I do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 44. …Nicely tells me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 45. …Nicely tells me the truth about how I do on things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 46. …Helps me when I need it. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 47. …Shares his or her things with me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 48. …Takes time to help me solve problems. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

**Wang, Willett, and Eccles School Engagement Scale (WWESES) (Pilot Study)**

**PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY**

On the next four pages, you will be asked to respond to questions about how you behave in school, feel about school, and think when doing schoolwork. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

Some sections will ask you how often you do, feel, or think things in school; while other sections will ask you if you agree or disagree with certain statements. **Read the bolded instructions at the beginning of each section carefully before you begin answering because the instructions change between sections.**

Below are two examples. Please read both carefully before starting your own ratings.

---

Example 1:

| | Almost Never | Sometimes | Often | Very Often | Almost Always |
|---|---|---|---|---|---|
| 1. How often do you skip class? | 1 | 2 | (3) | 4 | 5 |

Example 2:

| | Strongly Disagree | Disagree | Neither agree or disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 2. I feel happy and safe at school | 1 | 2 | 3 | (4) | 5 |

---

In the first example, the student has answered the question 'How often do you skip class?' with the response 'Often'. In the second example, the student has read the statement 'I feel happy and safe at school' and responded "agree'.

**The following section will ask you questions about how you behave in school. Please indicate how often you do each of the following behaviors. Circle only one response for every question.**

| **Circle ONE number for every question.** | **Almost Never** | **Sometimes** | **Often** | **Very Often** | **Almost Always** |
|---|---|---|---|---|---|
| 1. How often do you have trouble paying attention in classes? | 5 | 4 | 3 | 2 | 1 |
| 2. How often do you get schoolwork done on time? | 1 | 2 | 3 | 4 | 5 |
| 3. How often do you find that it is hard for you to keep your mind on your work in school? | 5 | 4 | 3 | 2 | 1 |
| 4. How often have you hit someone for what they said/did? | 5 | 4 | 3 | 2 | 1 |
| 5. How often have you been involved in a physical fight? | 5 | 4 | 3 | 2 | 1 |
| 6. How often have you been sent to the office? | 5 | 4 | 3 | 3 | 1 |
| 7. How often have you skipped class? | 5 | 4 | 3 | 2 | 1 |

**The following section will ask you questions about how you feel about school. Please indicate how strongly you agree or disagree with the statements below. Circle only one response for each question.**

| **Circle ONE number for every question.** | **Strongly Disagree** | **Disagree** | **Neither Agree or Disagree** | **Agree** | **Strongly Agree** |
|---|---|---|---|---|---|
| 8. I feel happy and safe in this school. | 1 | 2 | 3 | 4 | 5 |
| 9. In general, I feel like a real part of this school. | 1 | 2 | 3 | 4 | 5 |
| 10. I would recommend to other kids that they go to my school. | 1 | 2 | 3 | 4 | 5 |
| 11. I have to do well in school if I want to be a success in life. | 1 | 2 | 3 | 4 | 5 |
| 12. Schooling is not so important for kids like me. | 5 | 4 | 3 | 2 | 1 |
| 13. I learn more useful things from my friends and relatives than I learn in school. | 5 | 4 | 3 | 2 | 1 |
| 14. Getting a good education is the best way to get ahead in life for the kids in my neighborhood. | 1 | 2 | 3 | 4 | 5 |
| 15. I often learn a lot from my school work | 1 | 2 | 3 | 4 | 5 |

**The following section will ask you questions about how you think in school. Please indicate how often you do each of the following behaviors. Circle only one response for every question.**

| **Circle ONE number for every question.** | **Almost Never** | **Sometimes** | **Often** | **Very Often** | **Almost Always** |
|---|---|---|---|---|---|
| 16. How often do you try to figure out problems by planning how to solve them? | 1 | 2 | 3 | 4 | 5 |
| 17. How often do you try to carry out the plans you make for solving problems? | 1 | 2 | 3 | 4 | 5 |
| 18. How often do you try to bounce back quickly from bad experiences? | 1 | 2 | 3 | 4 | 5 |
| 19. How often do you try to learn from your mistakes? | 1 | 2 | 3 | 4 | 5 |
| 20. When you are doing homework or schoolwork, how often do you try to decide what you are supposed to learn, rather than just read the material? | 1 | 2 | 3 | 4 | 5 |
| 21. How often do you try to relate what you are studying to other things you know about? | 1 | 2 | 3 | 4 | 5 |
| 22. How often do you try to plan what you have to do for homework before you get started? | 1 | 2 | 3 | 4 | 5 |
| 23. How often do you make sure you get started on it early? | 1 | 2 | 3 | 4 | 5 |

**Most Current Grade in Math Class Question (Pilot Study)**

What was the grade in your Math class on your last quarter report card?

(circle one)

1) A+
2) A
3) A-
4) B+
5) B
6) B-
7) C+
8) C
9) C-
10) D+
11) D
12) D-
13) F
14) I was not in a math class during last quarter.

**Demographic Questionnaire (Full Study)**

**PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY**

MALE or FEMALE (circle one)

AGE: _____

GRADE (circle one): 9th 10th 11th 12th

NAME OF SCHOOL: _____

DATE: _____

RACE / ETHNICITY (circle one)

African American
Asian American
White
Latino American
Native American
Mixed Ethnicity
Other

WHO IS RAISING YOU? (circle all that apply)

Mother
Father
Step-Father
Step-Mother
Grandmother
Grandfather
Other (example: mother's boyfriend):_____

WHICH ADULT IN YOUR LIFE DO YOU SPEND THE MOST TIME WITH? (example: mom, dad, guardian, aunt, etc.): _____

WHAT IS YOUR **FATHER'S** HIGHEST LEVEL OF EDUCATION? (circle one)

Did not graduate high school
High school degree
2-year college degree
4-year college degree
Graduate school degree
I don't know

**PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY**

WHAT IS YOUR **MOTHER'S** HIGHEST LEVEL OF EDUCATION? (circle one)

Did not graduate high school
High school degree
2-year college degree
4-year college degree
Graduate school degree
I don't know

IN THE PAST SIX MONTHS, HAS YOUR FAMILY HAD INADEQUATE MONEY TO COPE WITH THE FAMILY EXPENSES? (circle one)

Never Rarely Sometimes Always I don't know

IN THE PAST SIX MONTHS, HAS YOUR FAMILY DELAYED THE PAYMENT OF BILLS BECAUSE OF FINANCIAL DIFFICULTY?

Never Rarely Sometimes Always I don't know

WHAT HAS BEEN THE ECONOMIC CONDITION OF YOUR FAMILY IN THE PAST SIX MONTHS?

No financial difficulty Some financial difficulty

Much financial difficulty I don't know

**Child and Adolescent Social Support Scale (CASSS) (Full Study)**

On the next two pages, you will be asked to respond to sentences about some form of support or help that you might get from either a parent, a teacher, a classmate, or a close friend. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

For each sentence you are asked to provide two responses. First, rate how often you receive the support described and then rate how important the support is to you. Below is an example. Please read it carefully before starting your own ratings.

| | HOW OFTEN? | | | | | | | IMPORTANT? | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | NEVER | ALMOST NEVER | SOME OF THE TIME | MOST OF THE TIME | ALMOST ALWAYS | ALWAYS | | NOT IMPORTANT | IMPORANT | VERY IMPORTANT |
| 1. My teacher(s) helps me solve problems | 1 | (2) | 3 | 4 | 5 | 6 | | (1) | 2 | 3 |

In this example, the student describes 'teacher helps me solve problems' as something that happens 'some of the time' and that is 'important' to her.

**Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!**

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| The Person/People Who Are Raising Me… | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **The Person/People who are raising me…** | | | | | | | | | |
| 1. …Show me they are proud of me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 2. …Understand me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 3. …Listen to me when I need to talk. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 4. …Make suggestions when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 5. …Give me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 6. …Help me solve problems by giving me information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 7. …Tell me I did a good job when I do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 8. …Nicely tell me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 9. …Reward me when I've done something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 10. …Help me practice my activities. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 11. …Take time to help me decide things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 12. …Get me many of the things that I need. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| My Teacher(s)… | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Teacher(s)…** | | | | | | | | | |
| 13. …Cares about me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 14. …Treats me fairly. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 15. …Makes it OK to ask questions. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 16. …Explains things I don't understand. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 17. …Shows me how to do things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 18. …Helps me solve problems by giving me information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 19. …Tells me I did a good job when I've done something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 20. …Nicely tells me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 21. …Tells me how well I do on tasks. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 22. …Makes sure I have what I need for school. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 23. …Takes time to help me learn to do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 24. …Spends time with me when I need help. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| My Classmates | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Classmates…** | | | | | | | | | |
| 25. …Treat me nicely. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 26. …Like most of my ideas and opinions. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 27. …Pay attention to me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 28. …Give me ideas when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 29. …Give me information so I can learn new things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 30. …Give me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 31. …Tell me I did a good job when I do something well. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 32. …Nicely tell me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 33. …Notice when I have worked hard. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 34. …Ask me to join activities. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 35. …Spend time doing things with me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 36. …Help me with projects in class. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

| | How Often? | | | | | | Important? | | |
|---|---|---|---|---|---|---|---|---|---|
| My Close Friend | Never | Almost Never | Some of the Time | Most of the Time | Almost Always | Always | Not Important | Important | Very Important |
| **My Close Friend…** | | | | | | | | | |
| 37. …Understands my feelings. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 38. …Sticks up for me if others are treating me badly. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 39. …Helps me when I'm lonely. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 40. …Gives me ideas when I don't know what to do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 41. …Gives me good advice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 42. …Explains things that I don't understand. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 43. …Tells me he or she likes what I do. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 44. …Nicely tells me when I make mistakes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 45. …Nicely tells me the truth about how I do on things. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 46. …Helps me when I need it. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 47. …Shares his or her things with me. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |
| 48. …Takes time to help me solve problems. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 |

**Wang, Willett, and Eccles School Engagement Scale (WWESES) (Full Study)**

**PLEASE DO NOT WRITE YOUR NAME ANYWHERE ON THIS SURVEY**

On the next four pages, you will be asked to respond to questions about how you behave in school, feel about school, and think when doing schoolwork. Read each sentence carefully and respond to them honestly. There are no right or wrong answers.

Some sections will ask you how often you do, feel, or think things in school; while other sections will ask you if you agree or disagree with certain statements. **Read the bolded instructions at the beginning of each section carefully before you begin answering because the instructions change between sections.**

Below are two examples. Please read both carefully before starting your own ratings.

---

Example 1:

| | Never or Almost Never | Sometimes | Often | Very Often | Always or Almost Always |
|---|---|---|---|---|---|
| 1. How often do you skip class? | 1 | (2) | 3 | 4 | 5 |

Example 2:

| | Strongly Disagree | Disagree | Neither agree or disagree | Agree | Strongly Agree |
|---|---|---|---|---|---|
| 2. I feel happy and safe at school | 1 | 2 | (3) | 4 | 5 |

---

In the first example, the student has answered the question 'How often do you skip class?' with the response 'Often'. In the second example, the student has read the statement 'I feel happy and safe at school' and responded "agree'.

**Please ask for help if you have a question or don't understand something. Do not skip any sentences. Please turn to the next page and answer the questions. Thank you!**

**The following section will ask you questions about how you behave in school. Please indicate how often you do each of the following behaviors. Circle only one response for every question.**

| **Circle ONE number for every question.** | **Never or Almost Never** | **Sometimes** | **Often** | **Very Often** | **Always or Almost Always** |
|---|---|---|---|---|---|
| 1. How often do you have trouble paying attention in classes? | 5 | 4 | 3 | 2 | 1 |
| 2. How often do you get schoolwork done on time? | 1 | 2 | 3 | 4 | 5 |
| 3. How often do you find that it is hard for you to keep your mind on your work in school? | 5 | 4 | 3 | 2 | 1 |
| 4. How often have you hit someone for what they said/did? | 5 | 4 | 3 | 2 | 1 |
| 5. How often have you been involved in a physical fight? | 5 | 4 | 3 | 2 | 1 |
| 6. How often have you been sent to the office? | 5 | 4 | 3 | 3 | 1 |
| 7. How often have you skipped class? | 5 | 4 | 3 | 2 | 1 |

**The following section will ask you questions about how you feel about school. Please indicate how strongly you agree or disagree with the statements below. Circle only one response for each question.**

| **Circle ONE number for every question.** | **Strongly Disagree** | **Disagree** | **Neither Agree or Disagree** | **Agree** | **Strongly Agree** |
|---|---|---|---|---|---|
| 8. I feel happy and safe in this school. | 1 | 2 | 3 | 4 | 5 |
| 9. In general, I feel like a real part of this school. | 1 | 2 | 3 | 4 | 5 |
| 10. I would recommend to other kids that they go to my school. | 1 | 2 | 3 | 4 | 5 |
| 11. I have to do well in school if I want to be a success in life. | 1 | 2 | 3 | 4 | 5 |
| 12. Schooling is not so important for kids like me. | 5 | 4 | 3 | 2 | 1 |
| 13. I learn more useful things from my friends and relatives than I learn in school. | 5 | 4 | 3 | 2 | 1 |
| 14. Getting a good education is the best way to get ahead in life for the kids in my neighborhood. | 1 | 2 | 3 | 4 | 5 |
| 15. I often learn a lot from my school work | 1 | 2 | 3 | 4 | 5 |

**The following section will ask you questions about how you think in school. Please indicate how often you do each of the following behaviors. Circle only one response for every question.**

| **Circle ONE number for every question.** | **Never or Almost Never** | **Sometimes** | **Often** | **Very Often** | **Always or Almost Always** |
|---|---|---|---|---|---|
| 16. How often do you try to figure out problems by planning how to solve them? | 1 | 2 | 3 | 4 | 5 |
| 17. How often do you try to carry out the plans you make for solving problems? | 1 | 2 | 3 | 4 | 5 |
| 18. How often do you try to bounce back quickly from bad experiences? | 1 | 2 | 3 | 4 | 5 |
| 19. How often do you try to learn from your mistakes? | 1 | 2 | 3 | 4 | 5 |
| 20. When you are doing homework or schoolwork, how often do you try to decide what you are supposed to learn, rather than just read the material? | 1 | 2 | 3 | 4 | 5 |
| 21. How often do you try to relate what you are studying to other things you know about? | 1 | 2 | 3 | 4 | 5 |
| 22. How often do you try to plan what you have to do for homework before you get started? | 1 | 2 | 3 | 4 | 5 |
| 23. How often do you make sure you get started on it early? | 1 | 2 | 3 | 4 | 5 |

**Student Grade Point Average (GPA) Measure (Full Study)**

What was your Math Grade on your last report card? (circle one)

1) A+
2) A
3) A-
4) B+
5) B
6) B-
7) C+
8) C
9) C-
10) D+
11) D
12) D-
13) F
14) I was not in a math class during this report card period.

The class for which you received this grade was_____? (examples: Algebra I, Geometry, Calculus, etc.)

What was your Science Grade on your last report card? (circle one)

1) A+
2) A
3) A-
4) B+
5) B
6) B-
7) C+
8) C
9) C-
10) D+
11) D
12) D-
13) F
14) I was not in a science class during this report card period.
The class for which you received this grade was_____? (Examples: Physical Science, Biology, Chemistry, etc.)

What was your Social Studies/History Grade on your last report card? (circle one)

1) A+
2) A
3) A-
4) B+
5) B
6) B-
7) C+
8) C
9) C-
10) D+
11) D
12) D-
13) F
14) I was not in a social studies/history class during this report card period.

The class for which you received this grade was_____? (Examples: World History, American History I, Medieval Studies, etc.)

What was your English Grade on your last report card? (circle one)

1) A+
2) A
3) A-
4) B+
5) B
6) B-
7) C+
8) C
9) C-
10) D+
11) D
12) D-
13) F
14) I was not in a English class during this report card period.

The class for which you received this grade was_____? (Examples: English I, English II, Journalism, etc.)

***This is the end of the survey. Please raise your hand and tell an adult that you are finished.***

## APPENDIX C

## PERMISSION TO USE INSTRUMENTS

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**Permission to Use the Child and Adolescent Social Support Scale**

Spartan

**Mark Eades< mpeades@uncg.edu>**

## social support measure

**Mark Eades**< mpeades@uncg.edu> Sun, May 26, 2013 at 4:46 PM
To: cmalecki@niu.edu

Hello Dr. Malecki,

My name is Mark Eades and I'm a current doctoral student in the Counseling department at the University of North Carolina at Greensboro (UNCG). For my dissertation, I will be looking into how school engagement is affected by the four forms of social support for African American male high school students. After scouring the literature attempting to find a valid measure of social support to use, I came across your article entitled, "Measuring perceived social support: Development of the child and adolescent social support scale (CASSS)" and think your measure would be ideal for me to use with my population of interest. So, my question for you is, would you be amenable to me using your measure for my dissertation? If so, I would be more than happy to share with you my results after it is completed.

Thank you for your time and I hope to hear from you soon.

-Mark

--

Mark P. Eades, M.A., LPCA, NCC
Doctoral Student
Department of Counseling and Educational Development
The University of North Carolina at Greensboro
mpeades@uncg.edu
(919) 610-9174

Spartan

**Mark Eades< mpeades@uncg.edu>**

## CASSS

**Christine Malecki**< cmalecki@niu.edu> Tue, Jun 4, 2013 at 1:43 PM
To: mpeades@uncg.edu

Thank you for your interest in the CASSS. Please find the manual and the measure attached. The measure is free to be used for its intended purposes with no fees at this time.

We do ask that you consider sharing your CASSS data with demographic characteristics at the conclusion of your study so that we may add the data to our psychometric database.

Thank you for your interest and good luck with your research.

Christine Malecki and Michelle Demarary

Christine Malecki, Ph.D.
Professor
Northern Illinois University
Psychology Department
DeKalb, IL 60115
cmalecki@niu.edu
815-753-1836 (work)
815-753-8088 (fax)
http://www.niu.edu/psyc/faculty/malecki.shtml

**2 attachments**

**CASSS2000Manual0504.pdf**
133K

**CASSS2000 mail.pdf**
135K

**Permission to Use the Wang, Willett, and Eccles Social Support Scale**

Spartan

**Mark Eades< mpeades@uncg.edu>**

## school engagement measure

3 messages

**Mark Eades**< mpeades@uncg.edu> Sun, May 26, 2013 at 4:38 PM
To: wangmi@umich.edu

Hello Dr. Wang,

My name is Mark Eades and I'm a current doctoral student in the Counseling department at the University of North Carolina at Greensboro (UNCG). For my dissertation, I will be looking into how the three types of school engagement are affected by various forms of social support for African American male high school students. After scouring the literature attempting to find a valid measure of school engagement to use, I came across your article entitled, "The assessment of school engagement: Examining dimensionality and measurement invariance by gender and race/ethnicity" and think your measure would be ideal for me to use with my population of interest. So, my question for you is, would you be amenable to me using your measure for my dissertation? If so, I would be more than happy to share with you my results after it is completed.

Thank you for your time and I hope to hear from you soon.

-Mark

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(919) 610-9174

**Ming-Te Wang**< wangmi@umich.edu> Tue, May 28, 2013 at 7:36 AM
To: Mark Eades <mpeades@uncg.edu>

Dear Mark,
You are welcome to use the school engagmeent measures. You just need to cite our papers. I also attached a shorter version of school engagmeent measure, just in case it is of interest to you. The shorter version has been validated as well.
Good luck with your dissertation.
Ming

**items used in paul study.docx**

## APPENDIX D

## PILOT STUDY

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## Pilot Study Methods and Results

The purpose of the pilot study was to field test the instrumentation and procedures prior to administering the survey during the full study. The participants' feelings, thoughts, and critiques of the survey and survey procedures were obtained immediately after the survey during a focus group; this information was then used to amend the study survey. Because of the limited size of the pilot sample, no research questions were analyzed.

### Participants

The pilot study included 4 African American male high school students recruited from an independent high school near Greensboro, NC. The average age of the participants was 15.5 years old. The sample consisted of one freshman, two sophomores, and one senior. Additional information can be found in Table 1.

### Instruments

Participants completed a paper and pencil survey that included the demographic questionnaire, the Child and Adolescent Social Support Scale (CASSS; Demary & Malecki, 2002), The Wang, Willett, and Eccles School Engagement Scale (WWESES; Wang, Willett, & Eccles, 2011), and an additional question about math achievement created by the researcher. At the conclusion of the survey, participants participated in a focus group for 20 minutes and were asked to provide feedback on the clarity of the survey questions as well as to provide their own personal reactions to their experience taking the survey. After the survey and focus group were completed, each participant was given a $5 gift card.

Social support was measured using the CASSS. The CASSS contains 48 Likert scale questions, ranging from 1(*Never*) to 6 (*Always*), asking participants to self-reflect on how often they experience supportive actions from parents, teachers, peers, and close friends. For each subsection (parent, teacher, peer, and close friend), there is also an importance rating scale ranging from 1 (*Not important*) to 3 (*Very important*). For example, a sample question in the parent support subscale reads, "My parent(s) help me make decisions". A participant would then rate this in terms of how often this happens (1 to 6) and also in terms of how important this action is to the student (1-3). The CASSS was normed on a sample of high school and middle school students, with reliability estimates for both levels. High school students report factor loadings of .54-.83 for the parent subscale, .59-.85 for the teacher subscale, .37-.69 for the peer subscale, and .69-.84 for the close friend subscale. The CASSS correlated highly with Social Skills Rating Scale (SSRS, .62, $p < .001$) and the Student Self-Concept Scale (SSCS, .49, $p < .001$), demonstrating high convergent validity.

The CASSS originally consisted of five subscales, including a school support scale, but a follow up analysis of the CASSS (Demaray & Malecki, 2002) demonstrated that a four-factor design created the best fit to the overall social support concept. In this follow up analysis, 757 students from five states completed the CASSS. Reliability measurements were found to be high, ranging from .89 to .94 on all of the subscales and .95 overall. Based on the research of Demaray & Malecki (2002), only the parent, teacher, peer, and close friend subscales will be included in the current research. In addition, Demaray & Malecki (2002) demonstrated high correlation of the four factor

design of the CASSS with the Social Support Scale for Children (.70) (SSSC; Harter, 1985), demonstrating high convergent validity for the four factor structure of the CASSS and providing strong support that the CASSS is measuring the same variable as the SSSC, mainly, social support. Test-retest reliability of the four-factor scale of the CASSS after 8 weeks was found to be .70.

School engagement was measured using the WWESES. This scale was created to encompass the three areas of school engagement: behavioral, emotional, and cognitive that were described in chapter 2. Students will be asked to respond to 23 items that ask participants to reflect on their behavior (i.e. How often do you get schoolwork done on time?) and thought processes (i.e. How often do you try and learn from your mistakes?) in school. Each question asks students how often they do or think certain things on a Likert scale from 1 (almost never) to 5 (almost always); higher scores indicating higher behavioral and cognitive engagement. On the behavioral engagement scale, some items are reverse coded, such that an answer of "almost always" indicates lower engagement (i.e. how often have you skipped class?). For the emotional engagement scale, students are asked how strongly they agree with a set of statements from 1(strongly disagree) to 5 (strongly agree). Higher scores indicate a higher amount of self-perceived emotional engagement. The 23-item scale was created with the help of "experts in the field (Drs. Blumenfeld, Fredericks, and Eccles)" (pg. 460) in order to represent the common three theoretical subfields that create school engagement and to provide a source of face validity for the survey questions. The authors conducted confirmatory factor analysis on a sample of 1,000 8$^{th}$ grade students (56% African American) from 14 different states and

found that the three-area model had a significant fit based on factor loadings (.71-.89), indicating evidence for convergent validity. Reliability coefficients were all .70 or higher for each type of school engagement, indicating that students are able to consistently differentiate between all three forms of school engagement.

A demographic questionnaire was created by the researcher to collect information on the participants' age, gender, race, current grade level, and school currently enrolled in. Students were asked to not write their name or any identifying information on the demographic portion of the survey in order to preserve participant confidentiality.

A final question on the survey asks students to report their grade in math class on their last quarter report card. This question was created by the researcher. Responses to this question range from A+ to F. There was also a response of "I was not enrolled in a math class last semester" that students could choose if it applied.

**Procedures**

A paper and pencil survey was created containing all of the measures outlined above. Permission to administer the survey was gained from the University of North Carolina at Greensboro's Institutional Review Board. After approval was obtained, principals at several independent schools in the greater Greensboro, NC area were contacted and asked if they would like to be a part of the pilot study. Once a school consented to being involved in the pilot study, the researcher met with all self-identified African American male students in the school to explain the study and to distribute consent forms for students to take home to be signed by parents or guardians. Students were instructed to return the consent form to the school by the end of the week. The

following week, the researcher returned to the school to administer the survey and conduct the focus group. Only students who returned a signed consent form from their parents or guardians were permitted to take the survey and to be in the focus group. Prior to administering the survey, the researcher read aloud an assent form to students while students read the form to themselves. If students wished to participate in the study, they were asked to sign the consent form.

The surveys took between 6 and 14 minutes to complete. Data obtained in the pilot study were entered into an SPSS spreadsheet (SPSS, 2011). Due to inadequate sample size (n=4), none of the hypotheses were examined using the pilot data.

**Data Analysis and Overview of Results**

Due to a small sample size, none of the proposed hypotheses were examined using the pilot sample, although, descriptive analyses were run on the demographic and survey questions. Results of these analyses are reported below.

First, demographic questions were examined in terms of frequencies and means. All students self-reported that they were male and 3 out of 4 students self-reported that they were African American. One student self-disclosed during the focus group that he did not know what to list as his race, as his mother is Native American and his father is African American. The student said that he wanted to circle both of these options on the demographic form, but because the form asks students to only circle one option, he circled "other". A majority of the participants reported being underclassmen (75% freshmen and sophomores). In order to protect the anonymity of the school that the students attended, this information will not be presented, even though a question on the

demographic form asked students to disclose what school they attended. Additional demographic information can be found in Table 1 below.

**Table 1**

**Demographic Description of the Pilot Data**

| Variable | Mean (Range) | N | % |
|---|---|---|---|
| Age | 15.5 (14-18) | | |
| Gender | | | |
| Male | | 4 | 100% |
| Race/Ethnicity | | | |
| African | | 3 | 75% |
| American | | 1 | 25% |
| Other | | | |
| Grade | | | |
| 9th | | 1 | 25% |
| 10th | | 2 | 50% |
| 11th | | 0 | 0% |
| 12th | | 1 | 25% |

Descriptive statistics were calculated for the three study instruments. The pilot study sample was too small to conduct the research questions outlined in chapter 3, but the means and standard deviations were calculated. Descriptive statistics are presented in Table 2 below.

**Table 2**

**Pilot Study Instrument Descriptive Statistics***

| Instrument (Score Range | M | SD | # of items |
|---|---|---|---|
| Social Support | | | |
| Parent (12-72) | 58.25 | 1.89 | 12 |
| Teacher (12-72) | 60.50 | 5.26 | 12 |
| Peer (12-72) | 58.25 | 4.57 | 12 |
| Close Friend (12-72) | 63.50 | 5.92 | 12 |
| School Engagement | | | |
| Behavioral (7-35) | 31.75 | .96 | 7 |
| Emotional (8-40) | 32.75 | 3.20 | 8 |
| Cognitive (8-40) | 26.25 | 2.21 | 8 |
| Math Grade | 3.25 | 1.5 | 1 |

*Inadequate sample size

## Focus Group Results

After students completed the survey, they took part in a focus group. The purpose of this focus group was to gain an understanding of how participants read the survey and if there were any changes that the participants believed would be helpful prior to administration in the full study. Four students in total participated in the focus group, ranging in age from 14 to 18. The group met in a classroom that psychology classes were typically held in, but during this time slot the teacher had a planning period and agreed that we could use the room for the study and focus group. The room consisted of 15 desks arranged in a circle, of which the group occupied 5. The room was well lit, with scattered class projects surrounding the outside perimeter. The students appeared relaxed in this environment, two of which were overhead commenting that psychology was their favorite class.

The researcher explained to the group that he would be recording the group's responses with a digital audio recorder and showed the device to the group. The researcher explained that he would tell the group when he would be turning the device on and off so that there would not be any confusion as to whether group responses were being recorded or not. Prior to the beginning of the focus group, two students asked if they could keep their surveys with them while answering questions, as they believed that it would help them to best remember their experiences while taking the survey. The researcher agreed to have the participants hold on to their surveys during the focus group in case they wished to reference their answers.

The researcher wanted to know what the students' overall experience was while completing the survey and also if the students would change anything about the survey itself. In order to achieve this goal, the researcher asked a series of open and closed ended questions to elicit responses from the participants.

The first group of questions was aimed at uncovering how the students felt taking the survey. Two examples of questions during this first portion of the focus group are "What was it like to take this survey?" and "Were you confused or frustrated by anything in the survey?" In response to the question "What was it like to take this survey?" One student spoke up immediately, saying that he thought that the survey was interesting because it seemed to be asking how he felt about school and his parents. Another student immediately jumped in, saying that during the first part of the survey (The CASSS), he thought it was interesting how the questions asked both how often some behaviors happened and also how important these behaviors were to him. The researcher noticed

that the other two participants were sitting quietly, and so the researcher asked if they had a similar experience as the other two group members. One participant simply said yes. The other participant said yes as well, but elaborated to say that he also felt that he the sections on parents and teachers were interesting because he doesn't think about how his parents and teachers help him in school. All the other participants were nodding in agreement after this response was given. In response to the question "Were you confused or frustrated by anything in the survey?" Two students jumped in at once, speaking over top of one another. The researcher asked one of the students to hold on to his thought while the other one shared his answer. This student said that in the second part of the survey he was frustrated by the range of responses that he was permitted to respond to. The student cited a specific question that asked how often he skipped class on a Likert scale from 1 (*Almost Never*) to 5 (Almost *Always*). The student said he was frustrated by this because he never skips class, but the lowest answer possible was only "almost never". The student said that if he were to choose this response, that it would make it seem like he skipped class sometimes and this was not the case for him. Another student jumped in immediately, saying he felt the exact same way; that he wanted to answer "never" to some of the questions in the second half of the survey but was not able to do so. The two other participants nodded their heads in agreement and said that they agreed with the first two students. The researcher wrote down this response from the students to reference later. After writing down this response, the researcher asked if anything else was frustrating of confusing about the survey. The group was silent for a few moments, with

every group member shaking their heads. One group member spoke up saying that nothing else was confusing, the directions and questions seemed pretty straightforward.

The second part of the focus group was aimed at uncovering what the students would like to change about the survey. Two examples of questions during the second portion of the survey included "If you could change anything about this survey, what would it be?" and "If your friends were taking this survey, do you think they would have trouble taking it?". In response to the question "If you could change anything about this survey, what would it be?" All of the students spoke up and referenced the earlier discussion about some parts of the survey only ranging from "almost never" to "almost always". All four of the students agreed that they would prefer if this section had an answer of "never" that they could have chosen for some of the questions. The researcher than asked the group if there was anything else that they would change about the survey. One of the participants flipped through his survey and pointed to the last question about student math grades. He showed this question to another participant and asked if their friend would be able to answer this question. The researcher noticed this interaction and asked both students what they were talking about. One of the students said that there was a mutual friend that both students had in common who went to a school that administered grades six time per year instead of four times per year. Because this last question asks students to comment on what their last quarter grade was in math class, the participants were concerned that if their friend were taking the survey that he may not be able to answer the question as it is written. The researcher wrote down this feedback and then asked the group a third time if there was anything else they would change about the

survey. The group shook their heads and two group members said no. The researcher then asked the participants "if your friends were taking this survey, do you think they would have trouble taking it?". There was a considerable silence to this question and two participants looked back through their surveys. One participant broke the silence by saying that he felt that the directions were very helpful and so he didn't think anyone would have trouble taking this survey. Another participant said that he agreed with this statement.

The focus group ended with the researcher asking "Is there anything else that you would like me to know or to ask me before we end this focus group?" Two of the participants immediately said no. Another participant quickly flipped through the pages of his survey and said no as well. The fourth participant asked the researcher what he was going to do with this data when he was finished with it. The researcher responded that he was going to run analyses to find connections between each of the sub-scales that the participants gave answers to. The participant nodded his head and the room became silent once again. The researcher asked once more if there were any more comments or questions that the participants wanted to voice before the group ended. All of the participants said no. At this point, the researcher told the group that he was going to turn off the audio recording device and the focus group would end. The researcher collected the surveys from all the participants and gave each participant a $5 gift card as they left the classroom. Each participant thanked the researcher for the opportunity to be in the focus group while exiting the classroom.

**Discussion**

Using a pilot sample of 4 African American male high school students, descriptive statistics were calculated on demographic information as well as survey instrumentation. In addition, a focus group was conducted to ask the pilot sample about the survey and to gain input on if survey procedures should be changed prior to conducting the full study. Based on the data collected from the surveys and the information obtained in the focus group, the following observations were made.

A theme in the survey data was that although overall instrument scores were relatively stable across participants, individual items scores tended to vary more widely. As an example, the behavioral engagement scores of all participants did not vary substantially ($M = 31.75$, $SD = .96$), but an item in this subscale ("How often do you find that it is hard for you to keep your mind on your work in school?") had a range from 5 to 2 on a 5 point scale. This may indicate that this question is not a solid representation of behavioral engagement in a high school African American male sample. In the full study, the researcher will observe the individual variance of each item to see if it needs to be removed from the instrument.

Another theme that emerged in the survey data was that several of the means of subscales were significantly higher than means reported in the CASSS and WWESES psychometrics. A potential reason for this may be that the pilot sample was drawn from a small, independent school, while data used to validate the CASSS and WWESES were obtained from students enrolled in public high schools. In the full study, participants will

be sampled from public high schools, which may result in means that are more similar to those reported in the CASSS and WWESES psychometric data.

During the focus group, the participants had some suggestions for how to best improve the survey instruments. When asked what the participants would change on the survey, all participants agreed that they would add another column to behavioral and cognitive engagement subscale surveys to include an option of "never". One student reported feeling confused during these sections, because he has never skipped a class but the lowest response available to him was "almost never". A modification will be made to these sections of the survey to include a response of "never" on the behavioral engagement and cognitive engagement subscales of the WWESES.

Another suggestion that was made during the focus group was to reword the final question about math grades. Two students referenced a mutual friend that they both have in another school district, in which the students receive grades six times per year instead of four times per year. The participants expressed concern that because this last question asks students to report their math grade on their last *quarter* report card, that their friend in another district, had he been responding to this question, may be confused. This question will be amended to read "What was the grade in your Math class on your last report card?